DOCUMENT RESUME

ED 451 496 CS 014 352

AUTHOR	Readence, John E., Ed.; Barone, Diane M., Ed.
TITLE	Envisioning the Future of Literacy.
INSTITUTION	International Reading Association, Newark, DE.
ISSN	ISSN-0034-0553
PUB DATE	2000-00-00
NOTE	168p.; Reprinted from the Jan/Feb/Mar 2000 themed issue of "Reading Research Quarterly," v35 n1.
AVAILABLE FROM	International Reading Association, 800 Barksdale Road, P.O. Box 8139, Newark, DE 19714-8139 ($21.95). Web site: http://www.reading.org.
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Reading Research Quarterly; v35 n1 Jan/Feb/Mar 2000
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	Childrens Literature; Elementary Secondary Education; *Futures (of Society); Journal Articles; *Literacy; *Reading Instruction; *Reading Research; *Teacher Education

ABSTRACT

This reprint of the January/February/March 2000 issue of the scholarly journal "Reading Research Quarterly" features researchers' responses to questions about what the new millennium will hold for literacy research and instruction. the authors are given an opportunity to imagine, speculate, and predict the future of literacy research, teacher education, the nature of politics, literacy instruction, and children's literacy materials. Following the initial article, "Envisioning the Future of Literacy," by the reprint's editors, articles are: "Literacy Research in the Next Millennium: From Paradigms to Pragmatism and Practicality" (D. R. Dillon; D. G. O'Brien; E. E. Heilman); "Reading Teacher Education in the Next Millennium: What Your Grandmother's Teacher Didn't Know That Your Granddaughter's Teacher Should" (J. Hoffman and P. D. Pearson); "Mentoring and Reporting Research: A Concern for Aesthetics" (D. E. Alvermann and G. G. Hruby); "Snippets: How Will Literacy Be Defined?" (J. W. Cunningham; J. E. Many; R. P. Carver; L. Gunderson; P. B. Mosenthal); "Political Acts: Literacy Learning and Teaching" (A. I. Willis and V. J. Harris); "'What's My Name?': A Politics of Literacy in the Latter Half of the 20th Century in America" (P. Shannon); "The Convergence of Literacy Instruction with Networked Technologies for Information and Communication" (D. J. Leu, Jr. and C. K. Kinzer); "Snippets: What Will Classrooms and Schools Look Like?" (E. B. Moje; L. D. Labbo; J. F. Baumann; I. W. Gaskins); "Looking Back, Looking Forward: A Conversation about Teaching Reading in the 21st Century" (R. L. Allington and A. McGill-Franzen); "Children's Literature and Reading Instruction: Past, Present, and Future" (M. G. Martinez and L. M. McGee); and "Equity and Literacy in the Next Millennium" (K. H. Au and T. E. Raphael). (NKA)

READING RESEARCH QUARTERLY

REPRINTED FROM THE JAN FEB MAR 2000 THEMED ISSUE OF *READING RESEARCH QUARTERLY* VOL. 35, NO. 1 ISSN 0034-0553

Envisioning the Future of Literacy

JOHN E. READENCE
DIANE M. BARONE
Editors

Reprinted From the
Jan/Feb/Mar 2000
Themed Issue of
Reading Research Quarterly
Vol. 35, No. 1
ISSN 0034-0553

Envisioning the Future of Literacy

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EDITORIAL

Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Envisioning the future of literacy

According to Bruce (1997), the concept of literacy "never seems to stand still" (p. 875). Historically, literacy may have been thought of as a discrete, compartmentalized concept, devoid of the context from which it emanates. Currently, it is problematic to discuss literacy without taking into account the contexts of language, culture, and power, among others. It would seem that the future of literacy is embedded in these tensions and others that have as yet not been recognized. Questions about literacy research and instruction in the future might include the context of schools and classrooms, the use of technology, or the design of research studies themselves. The crystal ball is hazy.

To provide a focus for the future, we decided to use this issue of *Reading Research Quarterly* as a vehicle for imagining, speculating, and predicting about literacy research and instruction. Consequently, we present to the readership a themed issue of the journal (something very rare in the history of *RRQ*) entitled *Envisioning the Future of Literacy*. We invited authors to take a risk and publicly gaze into the crystal ball, dissipating some of literacy's murkiness. The authors each received an invitation to write in response to a specific question. Once they received these invitations, they indicated to us through correspondence, and often in their manuscripts, the risk involved with such a project. They were expected to prophesize about a future filled with possibilities, which they themselves had to narrow. Then they would be held accountable for their choices because of the archival nature of this journal. To facilitate this task, we asked authors to briefly situate their topic in the milieu of today as a grounding for their speculations, and then to envision the future of literacy in the next millennium.

For this themed issue of *Reading Research Quarterly*, we invited members of the research community to respond to questions posed to them, from us the Editors, about the next millennium. We invited Deborah R. Dillon, David G. O'Brien, and Elizabeth E. Heilman to write about literacy research in the next millennium. Their article is grounded in the traditions of literacy research. They take a critical view of these traditions and guide the reader to pragmatism, "a practical philosophy and encompassing methodology motivated by the need to solve pressing problems" (p. 11). A pragmatic stance would then allow researchers to examine their underlying assumptions and encourage collaboration in their research activities.

We asked the teams of James Hoffman and P. David Pearson as well as Donna E. Alvermann and George G. Hruby to respond to the question "What will teacher education be like in the next millennium?" These teams responded to this question in very different ways. Hoffman and Pearson organize their article around the knowledge that your granddaughter's teacher needs to know that your grandmother's teacher didn't. These authors highlight the critical differences between training teachers and teaching teachers. They end their article with eight recommended actions for future research tied to teaching practice. Alvermann and Hruby write about the mentoring of teacher educators and model alternative ways of representing and evaluating research data. Their article unfolds into three parts similar to a triptych, which is textually and visually described within their article.

For the next question, "What will the political climate be in literacy in the future?", we invited the team of Arlette Ingram Willis and Violet J. Harris as well as Patrick Shannon to respond. Willis and Harris critique the interwoven nature of politics and literacy learning and teaching. Within this broader discussion, they focus on the ideological view that has most influenced literacy research, literacy instruction, literacy materials, and literacy assessment. Each of these sections is closed through a discussion of future steps—steps that need to be taken so that the past is not repeated. Shannon's article describes the parameters of some Americans' struggles for recognition. Throughout his writing, the reader is asked to reflect

on the importance of name and the efforts of groups to be recognized. Shannon grounds his discussion through an exploration of political stances and their connections to literacy programs.

The teams of Donald J. Leu, Jr. and Charles K. Kinzer and of Richard L. Allington and Anne McGill-Franzen responded to the question of "What will literacy instruction be like in the next millennium?" Leu and Kinzer center their article on the convergence of literacy instruction with the Internet and other networked technologies for information and communication. They discuss three cultural forces that are responsible for this convergence that include global economic competition, public policy initiatives, and literacy as technological deixis. Allington and McGill-Franzen use a conversational format to discuss what they have learned about teaching reading. They identify historical themes such as scientific inquiry, complaints about the success of public schooling, federal initiatives, and standards and assessment, among others. They end their conversation with an impassioned look to schools of the future.

The final question posed was "What were the expectations for literacy materials/children's literature in the next millennium?" The team of Miriam G. Martinez and Lea M. McGee and of Kathryn H. Au and Taffy E. Raphael were invited to respond to this question. Martinez and McGee write an article that examines the historical, political, and research roots, and the currents of changes that have led to shifts in reading instruction focused on basal and literature use. They end their article with a look to the future that includes the need for a theoretical rationale for why reading instruction requires literature. Au and Raphael examine the issue of equity and literacy. Their article is split; in the first half they discuss the key participants of teachers, students, and researchers and the issues of equity that affect them. The second half of the article focuses on changing definitions of literacy, literature, and instruction and, as in the first half, connections are made to equity issues. They end their article by sharing a research agenda that targets issues of equity and diversity in literacy research.

Interspersed in the journal are snippets. Snippets are also invited responses to questions posed by us. The snippets are shorter, and there are more authors responding to each question. All of the responses to a single question have been grouped together so that the similarities and differences in responses can be noted. Snippets are features that will be continued throughout this entire volume year of *Reading Research Quarterly*.

For the first set of snippets, the question posed was "How will literacy be defined?" James W. Cunningham, Joyce E. Many, Ronald P. Carver, Lee Gunderson, and Peter B. Mosenthal respond to this question. Cunningham organizes his essay around three societal changes that will impact the definition of literacy. Many shares her belief that readers in the 21st century will need to judge the credibility of sources they read so that they can determine the value of the information they encounter. Carver forecasts that definitions of literacy will become more standardized with rate of reading and accuracy of spelling included. Gunderson provides a historical view of literacy that includes the complexities of technology. Finally, Mosenthal argues that literacy is predictably defined in terms of agendas: agenda-setting and agenda-implementing endeavors.

For the second set of snippets, the question asked was "What will classrooms and schools look like?" Elizabeth Birr Moje, Linda D. Labbo, James F. Baumann, and Irene W. Gaskins answer this question. Moje frames her essay around the questions of who will be in these classrooms?, why will we be teaching?, and what, how, and where will we teach? Labbo describes three computer-related transformations that will influence schools and classrooms. Baumann organizes his snippet around three issues related to the nature of schools, classrooms, and students' literacy learning that he believes will persist into the 21st century. Finally, Gaskins identifies nine research-based and theoretical maxims that undergird the development of successful school cultures for literacy instruction.

This project has been intellectually challenging for the authors and intellectually stimulating for us in our roles as editors, as well as literacy researchers and educators. Before you become immersed in this issue, find a comfortable chair, sit back, and get ready to share in these authors' crystal ball predictions. We are convinced that these articles will engage you in thought provoking reflection that you will feel compelled to share with colleagues and students. We invite you to also share your comments with us in the form of a Letter to the Editors.

JER and DMB

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Literacy research in the next millennium: From paradigms to pragmatism and practicality

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It is a daunting (some would say foolhardy) task to attempt to predict what will happen to literacy research in the next decade, let alone in the next millennium. Artist Mary Engelbreit stated in a recent interview (1998), "So the millennium is just around the corner—get over it; get on with it." Engelbreit noted that we might place too much stock in calendar benchmarks, particularly those that end in zero. Her message is well taken. Nonetheless, the approaching triple-zero date provides an opportunity to pause, reflect, and review what we have learned about the conduct of our inquiry and to consider future directions for literacy research. We had four goals in writing this article: (a) to examine broadly how inquiry paradigms have been defined, (b) to critique how paradigms are used in inquiry in literacy and to question their usefulness, (c) to consider pragmatism as a perspective that may be more useful in helping us decide what we study and how we engage in inquiry, and (d) to discuss the future of literacy inquiry.

In literacy research, as in the broader arena of educational research, there are three classes of scholars. The first group tries to anticipate the newest research topic, methodology, and paradigm. These individuals look intently ahead with little attention to historical grounding for a simple reason: In higher education, where most of the research is supported and conducted, researchers are rewarded for carving out new directions, generating articles and grant proposals, and positioning themselves as leaders in the field. To invent new genres, coin new terms, set directions for others to follow, and create new paradigms is to cement one's reputation as a scholar. In contrast, less glamour is associated with grounding one's work solidly on others' research or refining and improving upon existing ideas.

The second group of researchers achieves credibility and enjoys career-long success by introducing a single groundbreaking idea, mapping out a portion of some new territory, or working consistently on a set of problems within a given paradigm over time. In examining types of black intellectuals, Cornel West (1993) described these scholars as the "bourgeois model" who are "prone to adopt uncritically prevailing paradigms predominant in the bourgeois academy" (p. 76).

The third group of scholars is motivated by a position or an issue and is philosophically and ethically driven to find an answer. These researchers focus on collaboratively identifying a problem with participants in a community and working together over time to generate theories and explanations that can be used in local settings.

Researchers in all three groups have generated valuable literacy research findings. Nevertheless, endless debates challenge the credibility of various paradigms (e.g., quantitative versus qualitative, cognitive vs. socially constructed) in which research questions have been grounded and critique the appropriateness of questions posed for inquiry as well as the impact of inquiry on practice.

Paradigms and inquiry

In this article we posit that the political affiliation with paradigms and the continued preoccupation with debates have resulted in literacy research that has made less difference than it could in practice. We offer pragmatism, and the discourse from which it is constructed, as a promising stance for moving us beyond paradigm affiliations and debates. We conjecture that the field of literacy, like the broader field of education, has not embraced pragmatism because it has been misunderstood and ill defined. Researchers have characterized pragmatists as individuals who fail to take a firm stance one way or the other on a given issue. We will discuss this further in a later section of the article. An example from within literacy research and practice is the term *balanced or eclectic approach*, which has been associated with "a little of this and a little of that" (Graves, 1998, p. 16), or "two very distinct, parallel approaches coexisting in a single classroom in the name of 'playing it safe'" (Strickland, 1996, p. 32). However, as Graves (1998) stated: "The purpose of creating balanced programs is to provide students with the best possible experiences for becoming competent and eager readers [and quality instruction] goes beyond a simple concept of balance [to] balancing instruction across a number of dimensions" (p. 16).

Graves and Strickland, who take a pragmatic stance, both noted that there are dimensions that undergird balance, but that there "is not one specific Balanced Approach" (Strickland, 1996, p. 32). Both imply, however, that the selection and articulation of the dimensions are important for progress to occur and that our guiding principle should be the end in view—students' learning.

In the next section we define paradigms and critique their usefulness in literacy inquiry. The following questions organize the discussion: What are paradigms? What do paradigms mean to inquiry in literacy? Has the multiplicity of paradigms we draw from helped or hindered our inquiry? What paradigms could make a difference in our inquiry and why? Following this discussion we present pragmatism as an alternative to paradigmatic perspectives.

Paradigms: A plethora of perspectives

The term *paradigm* is used in so many ways that it is meaningless to talk about it without selecting a definition prior to discussing its usefulness. For example, Patton (1990), a research methodologist, defined a paradigm as a "worldview, a general perspective, a way of breaking down the complexity of the real world" (p. 37). The term has been used to refer to a philosophical position, a research tradition or theoretical framework, and a methodology perspective.

Scholars across the disciplines have looked to philosophers of science for help in defining the term *paradigm*. Like other researchers who have struggled with the term during the last 20 years, we perused Kuhn's (1970) postpositivist position on inquiry in science and scientific revolutions, realizing that Kuhn also proliferated multiple meanings for the term in his classic work. Drawing from Kuhn's work, we defined a paradigm to be a conceptual system, clearly separate from other conceptual systems, with a self-sustaining, internal logic, constituted as a set of epistemological rules directed at solving problems matched to the logic and rules.

Kuhnian perspectives often focus on paradigm shifts. Shifts involve a process in which researchers, in the act of doing normal science (the day-to-day pursuit of problems within a chosen paradigm), are confronted with problems they cannot solve or assimilate, and thus adopt new paradigms following a period of crisis. Kuhn has characterized these shifts as developmental processes. A new paradigm, perhaps more technical or esoteric than the last, is viewed as a sign of scholarly maturity and development in a field. Yet, a certain amount of snobbery accompanies membership in the community aligned with a new paradigm. As new paradigms are accepted, old paradigms are rejected by the dominant research faction (e.g., Mosenthal, 1985).

Polkinghorne (1983) characterized Kuhn's notion of paradigm shifts as an "irrational, discontinuous jump, not an evolutionary or developmental change" (p. 113). Polkinghorne believes that research, when practiced day to day *within* a paradigm, can lead to progress, albeit progress constrained by the constitutive rules and questions permitted within the paradigm. Hence, progress in research not only is made by shifting to *better*, more comprehensive paradigms, but also is made within the conduct of normal science (Kuhn, 1970). That is, cumulative progress means continuing to do research within existing paradigms by choosing problems that are solvable, that the community agrees are worth solving, and that the community encourages its members to undertake. However, members of a paradigm may insulate themselves culturally and politically from other paradigmatic communities (Mosenthal, 1985), satisfied to make progress within a paradigm and to buttress it against other paradigms.

In its broadest sense a paradigm refers to a fully realized worldview that suggests not only a research methodology but also a value system or axiology, and ontological and epistemological premises. For example, paradigms as diverse as empiricism, behaviorism, progressivism, existentialism, capitalism, Marxism, feminism, romanticism, and postmodernism can be considered to be philosophical worldviews. Philosophical worldviews offer fully realized theoretical systems for understanding the world. Traditions, however, are distinct from philosophical worldviews. Traditions are disciplines from which we glean theories that guide our research methodologies (often referred to as theoretical frameworks). These traditions often reflect a worldview as well as a methodology, though the dominant worldviews and methodologies are subject to change as the research tradition or discipline changes. For example, anthropology is a discipline within which social and cultural theoretical frameworks are used to guide research; social psychology traditions are linked with symbolic interactionism; from psychology comes cognitive psychology and constructivism; and from theology, philosophy, and literary criticism comes hermeneutics. Both traditions and theoretical worldviews guide methodologies and yet commonly are referred to as paradigms; they are important philosophical choices in research.

For instance, researchers who want to study the social organizations in classrooms and how these affect learning and teaching could draw upon the discipline of anthropology, the theoretical perspectives of cultural and social theories, and the methodology of ethnography. The methodology chosen would dictate the types of data collected and how these data are analyzed. The assumptions undergirding the selected theoretical perspectives would affect the interpretation of the analysis, which also would be heavily influenced by a researcher's philosophical worldviews. Research typically involves many layers of paradigms including a philosophical worldview, a tradition or discipline, and a methodology. Further, each of these paradigms typically makes or implies ontological, epistemological, and axiological claims. The nature of these claims and the meaning of these terms, drawn from several sources (Hitchcock & Hughes, 1989; Lincoln & Guba, 1985; Scheurich & Young, 1997), are elaborated as follows:

- *Ontology*: the nature of reality (what is understood to be real). Ontological assumptions get at what people believe and understand to be the case—the nature of the social world or the subject matter that forms the focus of our research. Ontological beliefs give rise to beliefs about epistemology.
- *Epistemology*: ways of knowing reality (what is true). Epistemological assumptions are those that people hold about the basis of knowledge, the form it takes, and the way in which knowledge may be communicated to others. Scheurich and Young (1997) related that these assumptions arise out of the social history of specific groups and that our typical epistemologies are often biased (e.g., racially). Epistemological assumptions have methodological implications.
- *Axiology*: basic beliefs that form the foundation of conceptual or theoretical systems; the idea that the truth of propositions generated from inquiry depends on shared values between the researcher and participants. These beliefs include what is good or the disputational contours of right and wrong or morality and values (e.g., the need for shared information about knowledge generated during a study and protection for the participants from knowledge generated about them being used against them).
- *Methodology*: ways of undertaking research including frames of reference (e.g., theoretical frameworks), models, concepts (e.g., conceptual frameworks), methods, and ideas that shape the selection of a particular set of data-collection techniques and analysis strategies.

A more narrow interpretation of a paradigm may focus on one or more of the dimensions above. For example, literacy researchers may work primarily from a methodological paradigm and may not feel that a philosophical worldview, complete with ethical or ontological concerns, is necessary. Other researchers, such as postmodern and poststructuralist inquirers, eschew the very authority of scientism that supports assumptions, preferring to work unbound by these perceived constraints. Alternatively, one could argue that any research suggests ontological, epistemological, and axiological concerns, even if researchers do not explicitly acknowledge these assumptions.

Critical, then, to understanding the nature of paradigms is knowing the assumptions, values, shared beliefs, and practices held by communities of inquirers. Literacy researchers seldom address these ontological, epistemological, or axiological assumptions explicitly (if at all) in their writings or their research practices, although methodologies are addressed. Yet many researchers embrace the paradigmatic assumptions as crucial to an internally cohesive, quality research project. Others argue that specific philosophical paradigmatic allegiance, grounded in the assumptions, is neither critical nor even necessary; in fact, opponents argue that philosophical debates over such esoteric matters keep us from the real work we should be doing (e.g., Patton, 1990). The latter group of individuals is more interested in finding new ways to solve problems or in re-creating and subsequently shifting the field in the direction of new paradigms. When discussing methodological issues, Patton (1990) noted:

> [Paradigms are] deeply embedded in the socialization of adherents and practitioners: Paradigms tell them what is important, legitimate, and reasonable. Paradigms are also normative, telling the practitioner what to do without the necessity of long existential or epistemological consideration. But it is this aspect of paradigms that constitutes both their strength and weakness—their strength in that it makes action possible, their weakness in that the very reason for action is hidden in the unquestioned assumptions of the paradigm. (p. 37)

Patton is concerned that "too much research, evaluation, and policy analysis is based on habit rather than situational responsiveness and attention to methodological appropriateness" (p. 38). He reminds us that paradigmatic blinders constrain methodological flexibility and creativity: Instead of being concerned about shifting from one paradigm to another, we may adhere rigidly to the tenets of a paradigm, perhaps because of philosophical arguments about adherence to assumptions underlying our worldview, rather than adjust the paradigm to meet the challenges of new issues and problems we encounter in research.

We have cited Patton throughout our discussion of paradigms because he is a self-proclaimed pragmatist. His stance is that researchers do not need to shift to a new paradigm when the existing one is not broad enough for researchers' needs; nor do they need to stay trapped within the philosophical constraints of a particular worldview. Instead, researchers work to "increase the options available to evaluators, not to replace one limited paradigm with another limited, but different paradigm" (Patton, 1990, p. 38). He differs from Polkinghorne (1983), who suggested that one should work within an existing paradigm and adjust research questions within it. Rather, Patton suggested that researchers work within a paradigm but bring in new frameworks, methods, and tools—whatever is needed—to better address the research questions at hand. In the next section we discuss the use and usefulness of paradigmatic reasoning to literacy inquiry.

Paradigms in literacy inquiry: Have they been useful?

Recent research in literacy has been influenced by broad shifts in approaches to both natural and social science research. Earlier educational research can be characterized by the use of classical empirical scientific paradigms, which were grounded in a nearly utopian belief in the possibilities of science. Scientific methods were understood to be capable of capturing truth about reality and phenomena that were not available through ordinary discourse and observation. Research was driven by epistemological concerns. A scientific epistemology was thought to reveal ontological certainty upon which actions should be based. For example, the scientific positivist study of literacy was thought to reveal unequivocal universal truths about learners and learning that would allow for the unequivocally scientific application of teaching.

Researchers in both natural and social sciences, however, have become increasingly aware of the role of context, subjectivity, interpretation, and social values in all aspects of what was earlier understood to be an objective research process. What is observed and the meaning that is made of inquiry both are understood to be deeply influenced by the theoretical assumptions of researchers. This recognition has underscored the value of research approaches that shed light on the complexity of learners, researchers, and research settings. This includes paradigms such as sociolinguistics, various qualitative approaches, and phenomenological and hermeneutical interpretations as well as the critical and postmodern. These paradigms are increasingly being pursued not only because of their intrinsic capacity to help clarify complexity, or, in the case of critical theory, to champion the perceptions of the oppressed and underserved, but also because of their popularity in some settings.

A historical glance shows clearly that the field of literacy is not one that has evolved through the adoption, adaptation, and rejection of successive paradigms generated from within. Rather, paradigms in literacy research have been borrowed from various fields that have richly informed research topics and methods, albeit with arguments both supporting and criticizing the multiplicity of paradigms.

A variety of paradigms can enrich literacy inquiry

The diversity of fields and their accompanying paradigms that have informed literacy research can be viewed as enriching our perspectives and methods of inquiry (Beach, 1994; Beach, Green, Kamil, & Shanahan, 1992; Harris, 1969; Pearson & Stephens, 1994; Ruddell, 1998). Pearson and Stephens noted that about 30 years ago scholarship in the field of reading consisted primarily of the study of perceptual processes. They stated that the field was transformed suddenly in the mid- to late-1960s not because of paradigm shifts from within the community of reading researchers, but because scholars in other fields (e.g., linguistics, psycholinguistics, cognitive psychology, sociolinguistics) had become interested in reading. Each of these fields defined the reading process using descriptive and operational definitions, constitutive rules, and research methods that fit their individual paradigms. The field of reading (and indeed the broader field of literacy as we define it) is what Pearson and Stephens (1994) referred to as a transdisciplinary field that permits scholars to solve myriad problems using a variety of perspectives.

Pearson and Stephens's (1994) retrospect is validated by Harris (1969), who summarized the field of reading as he saw it at the time. In his chapter called "Reading" in the fourth edition of the *Encyclopedia of Educational Research*, he viewed reading research as a mirror image of research in the broader educational community, a field he characterized as being influenced by other disciplines. Harris traced reading research in this century from an early focus on perception (1910); to case studies (1920s); to evaluation and behaviorism (1930s); to reading comprehension defined by psychometrics and factor analysis (1940s); to experimental research with accompanying hypothesis testing and statistical tests (1950s, 1960s); to the most current work by scholars in other disciplines including psychology, linguistics, sociology, and medicine "who bring conceptual and experimental tools to bear on reading phenomena" (p. 1069). Harris took the perspective that researchers in the reading field should try to mirror the quality of the research being conducted in the multiplicity of fields informing the education field. He positioned the research methodology affecting reading research from outside the field proper as a standard to attain.

A variety of paradigms can hamper literacy inquiry

The notion of paradigm incommensurability (Donmoyer, 1996), if taken literally, means that fields such as literacy, informed by a range of disciplines, remain a set of subcommunities with incompatible assumptions and methodologies and little common language. The pragmatic stance, which we will discuss later, allows for compatibility. But we will explore the literal argument that the field has been hampered in its progress because of the multiplicity of voices emanating from incompatible paradigms (Clay, 1994; Mosenthal, 1985, 1999; Weintraub & Farr, 1976).

Mosenthal, who drew partly from Kuhn's (1970) work on paradigms, discussed the progress of educational research in general (1985) and reading research in particular (1987). He explored three different approaches to defining progress in research: (a) *literal approaches* in which researchers work diligently within a chosen paradigm to refine existing theories, find new features and examples compatible with the theory's higher order features (normal science), or discover anomalies leading to the creation of recombinant theories more inclusive than that developed within the paradigm supported by normal science (extraordinary science); (b) *interpretive approaches* in which researchers abandon the preoccupation with the fit between empirical definitions and reality in favor of the belief that reality is constructed; and, (c) *evaluative approaches* in which ideological implications of inquiry for society are central to the researcher's work. After careful discussion of these idealized ways of making progress, Mosenthal stressed that each group of researchers, or speech communities, embraces and advances their respective beliefs and abides by the rules that support definitions, cementing their solidarity with discursive practices that promote each definition as the normative one. Hence, progress, he contended, is defined not by a systematic testing and reconceptualizing of theoretical perspectives, but by political dominance and power of one speech community over others (Mosenthal, 1999). This is a less optimistic view of multiple paradigms and transdisciplinary research perspectives.

We can demonstrate further the negative side of positioning and repositioning of paradigms in literacy by drawing on multiple sources in which scholars synthesized research and discussed trends in the field. Almost 25 years ago, Weintraub and Farr (1976) noted that research in reading was being conducted using the classical empirical design because of what they referred to as "methodological incarceration." They contended that the model was used even though it was inappropriate for some of the research questions posed in the field. Weintraub and Farr also posited that reading researchers adhered to this paradigm to prove to allied professions, particularly psychology that reading researchers could conduct quality research in that era of classical experimental studies. Although literacy research conducted within this paradigm has been valuable and moved the field forward, one could argue that the self-imposed methodological incarceration did limit methodological vision.

Paradigms that could have made a difference but did not

The field of literacy is one microcosm illustrating the systematic positioning and repositioning of paradigms and their inherent communities. For example, in the first three editions of *Theoretical Models and Processes of Reading* (Singer & Ruddell, 1970, 1976, 1985), each table of contents maps out the dominant research communities. Not surprisingly, the contents of these texts include mostly psychological studies of processes of reading wherein authors have attached operational definitions of various systems such as phonological systems, lexical systems, decoding, recoding, and visual perceptual span. The section on models in the second edition (1976) is divided into four types of models (types based on substantive theories in psychology), tested against theories using methodology grounded in positivist science. Editors Singer and Ruddell hoped that the volume would enhance further theorizing and research productivity, resulting in better reading instruction in the United States.

Embedded within the predominantly psychological perspectives in the 1976 volume is a piece written by Ray

McDermott in a section called "Cultural Interaction." In his chapter, McDermott drew on anthropological theories and methods to look at the social reproduction of minority-community pariah status among poor children in school, and how this pariah/host (black children/white teacher) relationship plays out in the social organization of reading instruction. At the time most literacy researchers first acquired the second edition of *Theoretical Models*, they were interested in the dominant psychological paradigm. Few individuals seem to have noticed the unobtrusive McDermott piece, which fell clearly outside the dominant paradigm. In today's current context of interpretive research, significantly influenced by anthropological theories and methods, we can historically situate McDermott as a scholar who was ahead of his time.

In reviewing our own literacy research careers (Dillon & O'Brien), we wonder what would have happened if we had embraced McDermott's 1976 work instead of the dominant psychological paradigm. Might we have engaged in research at the beginning of our careers (in the early 1980s) that would be retroactively viewed as groundbreaking? However, like most of our colleagues, we overlooked McDermott because the dominant paradigm in the early 1980s was reading comprehension research, grounded in cognitive science using positivist and postpositivist methodologies. And even though we both studied qualitative research methodology and conducted such research starting in 1982, it was not readily embraced by our research community at conferences or by journal editors until years later. Hence, paradigms, although useful if considered in their broadest sense, have restricted the potential of research by limiting vision and polarizing competing research communities. Pragmatism, we contend, is a viable alternative.

Implications for the future: Pragmatism and practical discourse

To meet the challenges that literacy researchers and practitioners will face in the new millennium, we look outside the field of literacy to a broader perspective in education—pragmatism (Dewey, 1916, 1919/1993a; Rorty, 1982, 1991). In the following section we define pragmatism and discuss why it is a useful alternative to paradigmatic reasoning.

What is pragmatism?

Pragmatism, a branch of philosophy, is 100 years old and is currently undergoing a revival (Dickstein, 1998) as a new way of approaching old problems in several diverse fields (e.g., law, social thought, literary theory). William James introduced pragmatism in his published lectures (1907/1991), but he built his arguments largely on the work of Charles S. Peirce. In its inception, pragmatism was considered highly controversial, but it interested many scholars because "like modernism, it reflects the break-up of cultural and religious authority, the turn away from any simple or stable truth [truth is provisional, grounded in history and experience or context, not fixed in the nature of things], the shift from totalizing systems and unified narratives to a more fragmented plurality of perspectives" (Dickstein, 1998, pp. 4–5).

In 1917 pragmatism was sharply criticized, and the downfall of this perspective was initiated:

> Dewey's pragmatic justification for America's entry into World War I, which shocked many of his followers, [and] showed up his concem with technique and efficiency at the expense of consistent values...it was a narrowly expedient philosophy of "adaptation" and "adjustment" bereft of ultimate goals. (Dickstein, 1998, p. 8)

Critics were dismayed that a pragmatic approach could be used to support such repugnant ends. Conservatives and Marxists as well as cultural critics rejected pragmatism. After World War II the rejection of pragmatism became even more pronounced because of new influences in thought including existentialism, psychoanalysis, European modernism, and a cultural conservatism linked with a fear of communism (cf. Morton White's 1949 text *Social Thought in America: The Revolt Against Formalism*).

The label *pragmatism*, like other vague terms, has been avoided by leading educational philosophers and researchers because it is overused and misconstrued, and a "terminological lightening rod" (Boisvert, 1998, p. 11). Even Dewey, who considered himself a pragmatist, left the term out of his texts, noting, "Perhaps the word lends itself to misconception...so much misunderstanding and relatively futile controversy have gathered about the word that it seemed advisable to avoid its use" (Dewey as cited in Boisvert, 1998, p. 11).

In this article we use pragmatism to support what Bernstein (1983) called "radical critiques of the intellectually imperialistic claims made in the name of method" (p. xi). In calling for pragmatism we are not advocating the approach of one or another theorist who is identifiable as a pragmatist; instead, we are advocating the spirit of the pragmatic tradition, which asserts that conducting inquiry to useful ends takes precedence over finding ways to defend one's epistemology. It is important to remember, as Dewey noted, that pragmatism does not mean "if it works then it's true" (Boisvert, 1998, p. 31), even though the term had been so cast. Paradigmatic critiques of research, when played out in the community, especially the popular media, show that researchers are

often more concerned about their theoretical positions than about answering important questions. However, pragmatists are not simply persons who push philosophical arguments—particularly metaphysical ones—aside to get research done. Nor are they wishy-washy inquirers who do not know which epistemology to support or individuals who have neglected worldviews to which their work is linked. Rather, they have decided, after careful consideration of the effort and involvement, that the broader epistemological arguments, particularly those based in foundational epistemology, can never be solved because meaning is inseparable from human experience and needs and is contingent upon context. This perspective in some ways prefigures the postmodern worldview.

The value of inquiry using the "pragmatic method" (James, 1907/1991, p. 23) is in looking at the practical consequences of a notion (a method or perspective of inquiry) before deciding to employ it. James argued that when comparing alternative views of science, one must examine the differences these views would make in the world if each were true. If the world is unchanged across alternative views, then discussing them is insignificant. The pragmatic method is not a way to get certain results but, rather, an "attitude of orientation" that looks beyond principles (metaphysics) toward consequences and "facts" (p. 27). Within this stance, ideas, which are based in our experiences, are true only insofar as they help us relate to other facets of our experience and to achieve our goals. As Misak (1998) explained, "The pragmatist argues, were we to forever achieve all of our local aims in inquiry, were we to get a belief which would be as good as it could be, that would be a true belief" (p. 410). Paradigms, or theories developed within paradigms, each may contribute something useful, but ultimately the usefulness in summarizing or synthesizing existing ideas that lead to new ideas (rather than the theoretical purity) is what is important.

Similarly Dewey (1938/1981) noted that the value of scientific research must be considered in terms of the projected consequences of activities—the end in view. Dewey identified genuine problems that were part of actual social situations as those researchers should address. These problems (from practice), stated Dewey, should be identified and carefully defined before inquiry is undertaken. In fact, this latter point—the need to convert a problematic situation into a set of conditions forming a definite problem—was recognized by Dewey as a weakness of much inquiry (i.e., researchers selected a set of methods without a clear understanding of the problem). After the problem or subject matter (the phenomenon under study) was identified and the dimensions clearly defined, Dewey recommended that the issue be investigated from various perspectives, depending on the purpose or objective of the inquiry. Finally, as Dewey stated, "the ultimate end and test of all inquiry is the transformation of a problematic situation (which involves confusion and conflict) into a unified one" (p. 401).

The usefulness of pragmatic inquiry, however, as conceived by Dewey, also should be considered in terms of its capacity to contribute to a democratic life, broadly defined. Dewey observed that democracy "has not been adequately realized in any time" (Boisvert, 1998, p. 299), and the goal of democracy is the "creation of a freer and... more humane experience in which all contribute." (Dewey, 1939/1993c, p. 245). Similarly, Rorty (1982) stated,

> Our identification with our community—our society, our political tradition, our intellectual heritage—is heightened when we see this community as ours rather than nature's, shaped rather than found, one among many which men have made. In the end, the pragmatists tell us what matters is our loyalty to other human beings, clinging together against the dark, not our hope of getting things right. (p. 166)

Because the problems that pragmatists address are to contribute to a more democratic way of life characterized by the creation of a freer and more humane experience, the identification of problems for inquiry is particularly important. Democracy is not simply a set of political institutions. For Dewey, democracy is most centrally a way of life, and also a way of inquiry. Dewey wrote, "Apart from the social medium, the individual would never 'know himself'; he would never become acquainted with his needs and capacities" (1908/1982, p. 388) and "Apart from the ties that bind him to others, he is nothing" (1932/1987, p. 323). Dewey emphasized the inherently social nature of all problem posing, and he believed that people cannot understand themselves, or develop their practical reasoning, in isolation from others. This ontological assumption is consistent with Hegel and, more recently, Charles Taylor's (1994) argument that our very psychology is collectively, situationally constructed. According to this understanding, a crucial feature of human life is its fundamentally dialogical character. As Taylor explained,

> We become fully human agents, capable of understanding ourselves, and hence of defining our identity, through our acquisition of rich human languages of expression...we learn these modes of expression through exchanges with others... the genesis of the human mind is in this sense not monological, not something each person accomplishes on his or her own, but dialogical. (p. 32)

Therefore, problems need to be socially situated and identified to be legitimate foci of inquiry. Dewey believed that all inquiry is "natural, situational, grounded in problems, interrogations of theory and practice and evaluative." Further, "The integration of particular nonexpert

experience, fostered by the establishment of interaction and discussion, enables the community to better use the insights" (Campbell, 1995, p. 199).

The inquiry process suggested by a pragmatic stance is quite different from traditional inquiry in which a researcher establishes a question or problem and proceeds without the integration of nonexpert opinion. In fact, for some researchers the integration of nonexpert opinion, which was key to Dewey, is understood as a sign of methodological weakness. The importance of dialogue and listening in inquiry requires new roles for researchers and also for the community of learners and practitioners, or what traditional research would call the subjects of research.

Another issue, which has been pointed out by critics of pragmatism, focuses on the practical challenge of using a method that requires the identification of problems. For example, Thompson (1997) noted, "The contextual, problem-centered character (of pragmatism) limits its ability to identify and analyze structural problems" (p. 426). For those living under hegemonic power structures, the deep structural problems of inequality may not be perceived as such, or for those who benefit from inequity, power structures would not necessarily be considered problematic. Bernstein (1991) described Rorty's pragmatism as failing to engage in radical democratic critique and becoming "an apologia for the status quo—the very type of liberalism that Dewey judged to be 'irrelevant and doomed'" (p. 233). Therefore, Thompson (1997) recommended political pragmatism, which recognizes "systemic conflict between social groups" and "understands experience under such conditions as itself political" (p. 428). We believe that a researcher's biggest challenge within this stance will be working with diverse groups of stakeholders to identify and define the dimensions of problems, resisting the temptation to become fixated on methods yet employing empirical, ethical tools and strategies that yield insightful albeit sometimes unsettling answers to real problems, and writing up the findings to illuminate both the processes and results of inquiry. The following section further explores the implications of these issues for literacy inquirers.

Using a pragmatic stance for literacy inquiry in the new millennium

Scrutiny from within and outside the field of literacy has forced internal examination of our research and the ways that we engage in inquiry. As Chall (1998) noted in a recent article, the public "seems to place less confidence now than in the past in the power of research and analysis to find better solutions" (pp. 21–22). And although we have a proliferation of research that informs practice, "it has also contributed to the loss of faith in its use. Perhaps it is too vast and confusing and not sufficiently interpreted and synthesized" (pp. 21-22). Chall commented on the unorganized plethora of research findings that seem to have little impact on pedagogy or on solving current literacy problems, whereas Marty Ruddell (1998) emphasized that, in a time when our theoretical frameworks and methods are more diverse than at any time in our scholarly history in literacy, policy makers, politicians, and others who inform them have marginalized important forms of inquiry. This marginalization has occurred because research does not conform to the accepted, albeit narrow, politically correct paradigm. Moreover, Ruddell contended that the denial of a multiplicity of inquiry paradigms by politically visible national panels and policy makers is an attempt to force compliance to a "party line" (p. 8). The party line requires us to disavow our allegiance to paradigms outside of the canon of research rooted in developmental psychology and traditional scientism. Specifically, researchers who address questions generated in local settings and use interpretive methods to understand how particular teachers and students work together to support learning are positioned as being less scientific and, hence, less credible in terms of their processes and results.

Alternatively, literacy researchers who have conducted research projects that would be characterized by their peers as "scientific" (e.g., use large samples of children in multiple settings with experimental designs to measure growth or impact of programs or strategies) also feel marginalized in the literacy research community, hence the formation of a new organization, the Society for the Scientific Study of Reading (SSSR). Accepted by those in power in governmental agencies (e.g., national boards created to study why we have low reading scores in the United States), these researchers are often positioned even further away from their colleagues whose research is not deemed scientific enough.

Thus, political entities in government and elsewhere, the struggle for resources (grant monies) and jobs (tenure and promotion at universities), and a human need to feel that one has made a mark in the field all have contributed to a preoccupation with paradigm debates resulting in literacy research that has not made the difference it could in practice. Clearly, we need to regroup as a research community and consider the value of pooling our considerable intellectual resources. Difficult questions must be asked about why we engage in inquiry and who benefits from or is affected by the results of our efforts.

Dimensions of literacy inquiry for the future

Although it is difficult to change particular large systems or structures (e.g., university systems, government agencies) and their value systems, we can begin to make

changes as individuals and as a research community. We believe that a pragmatic perspective offers literacy researchers a way to approach inquiry that will enable us to agree to disagree, to get over it—ego involvement, and to get on with it—the important work of defining the literacy problems we need to solve, determining how best to solve these problems, and ensuring that the results inform practice (Mosenthal, 1999). In the next section we move in this direction by presenting dimensions of literacy inquiry that we believe must be defined, articulated, put into practice, and evaluated.

Dimension #1: Building communities of inquiry

Dewey reminded us that from a pragmatic perspective it is critical that we reconceptualize how inquiry is conducted, who we involve in the inquiry process, and the roles various participants assume within the process.

Community partnerships. A 1999 Kellogg Commission publication by the National Association of State Universities and Land-Grant Colleges (NASULGC) presents a key issue relating to the reconceptualization of how inquiry is conducted. The report challenges university personnel to work toward organizing staff and resources to better serve local and national needs in meaningful and coherent ways. The Kellogg Commission noted that university personnel must go beyond traditional notions of outreach and service to what is termed engagement. This concept disrupts traditional notions of a one-way distribution of services (e.g., the expert at the university reaches out to the community and transfers knowledge) to promote the creation of partnerships (e.g., among university staff, K–12 teachers and administrators, parents, students, and members of the community) in which all parties come together with resources and expertise. Mutual respect is crucial, and individuals glean valuable information for specified purposes through collaboration. Engagement among partners involves seven key elements:

1. *Responsiveness*: the need to listen to community members and ask appropriate questions to identify public problems;

2. *Respect for partners*: the need to jointly identify problems, solutions, and definitions of success;

3. *Academic neutrality*: the need for activities that involve contentious issues that have profound social, economic, and political consequences and a change in the role university faculty assume in these issues;

4. *Accessibility*: the need to ensure that community members are aware of and can access resources that may be useful to solving problems;

5. *Integration*: the need for faculty members to seek new ways to integrate their outreach/service missions with their teaching and scholarship while also committing to interdisciplinary work;

6. *Coordination*: the need for overall coordination of engagement efforts across the university and community and the assessment and communication of these efforts;

7. *Resources partnerships*: the need for adequate resources (time, effort, funding) to be committed to the tasks identified by all members of the partnership.

The idea of engagement is consonant with Dewey's pragmatic conception of social inquiry. Clearly, a commitment to engagement is necessary in forming partnerships. Strong leadership, coupled with support by administrators, promotion and tenure committees, and funding agencies, is also necessary. Communities must be open to diverse solutions to problems and varying roles of persons involved in partnerships. Challenges to this new concept of engagement and social inquiry revolve around logistical and accountability issues: How will communities of inquiry come together and function? Who will ultimately be responsible for the success or failure of partnerships? Will personnel be supported and rewarded for their efforts in both the short and long term? How do we know that people in communities of inquiry have the critical skills needed to deliberate problems? How will we mediate power and get along?

These challenges of pragmatism highlight what Bernstein (1983) understood to be a "paradox of praxis": "The type of solidarity, communicative interaction, dialogue, and judgement required for the concrete realization of praxis already presupposes incipient forms of community life that such praxis seeks to foster" (p. 175). Similarly, Dewey (1927/1993b) observed, "A class of experts is inevitably so removed from common interests as to become a class with private interests and private knowledge, which in social matters is not knowledge at all" (p. 187). It is difficult to conduct pragmatic inquiry that relies on communication and dialogue when teachers, community members, and researchers are not accustomed to working together; when literacy researchers are often separated by paradigmatic boundaries reinforced by power interests; and when researchers are similarly unaccustomed to communicative dialogue and interaction across disciplines both within education and across the academy.

Dewey (1916) envisioned communities of inquiry as communities that internally reflect "numerous and varied interests" and "full and free interplay with other forms of association" (p. 83). This conception is opposite our usual conception of independent research or academic communities in which interests and memberships are explicitly narrow. As Foucault (1975/1977, 1980) delineated, disciplinary practices with distinct types of knowledge and knowledge makers are disciplined and understood as systems of power and authority. The suggestion of a

more inclusive notion of research participants and academic communities through pragmatism implicates deeply entrenched notions of power and authority.

Partners as advocates for learners. A desire to work collaboratively to identify and solve problems is key to the formation of partnerships between school-based personnel, literacy researchers, and community members. This stance requires a form of advocacy by members of the partnership, what Rorty (1982) called "loyalty to other human beings" (p. 162) in order to promote "the creation of a freer and more humane experience" (Dewey, 1939/1993c, p. 245). For instance, partners might take up the cause of students who have been tracked using limited assessment measures. To give an example of the dynamics of such advocacy, and to present a stark contrast to education, we turn to medical research. The following example shows how a pragmatic perspective, with participants in the role of advocate for themselves and others, influences research and practice.

The National Breast Cancer Coalition (NBCC), whose members have demanded a significant role in the scientific research designed to find a cure for their disease, advocate strongly for scientific research that asks the right questions, that is designed in credible ways, and that will yield answers that are appropriate and adequately translated for the public. An article in a recent newsletter ("Science and Research: Call to Action," 1999, January/February) of the NBCC links science and advocacy:

> Science is supposed to be pure, based on data, and objective observation. So how can advocacy give us anything but bad science? Scientists are individuals with their own perspectives and biases. Individuals, who design protocols, determine which questions to ask and decide how to frame issues. The perspective of trained breast cancer activists can enrich the scientific process and through collaboration we can end up with better science and more meaningful answers. (p. 10)

During the design of high-stakes clinical research comparing the use of the drugs tamoxifen and raloxifene for women at high risk of breast cancer, advocates questioned the need for requiring control groups and placebos as well as large numbers of women in the study. Researchers refused to approve a placebo component, claiming that it would be unethical. NBCC advocates questioned what was ethical in the long term. It is crucial to a pragmatic view of research to define what is ethical within the community in which the research is conducted. As a result of many conversations, NBCC advocates are creating partnerships with industry and government as they design new therapies. These partnerships ensure that the participants (and later recipients of the therapies) are able to play a role in the design, implementation, and dissemination of results from clinical trials; the advocates also serve on peer review teams for funding agencies. This advocacy has resulted in what is referred to as a new paradigm for breast cancer research, with collaborative efforts resulting in answers about whether new therapies are effective much sooner than in previous years.

This medical example is interesting in comparison to advocacy efforts of researchers and educators in K–12 education settings. It presents a marked contrast to educators' advocacy for themselves and their students. A challenging question for educators is why we see little need for advocacy with such a large number of stakeholders, including researchers, teachers, parents, students, and citizens.

The NBCC advocates believe that advocacy and science must be paired if shared goals are to be achieved—goals like life itself and quality of life. Do stakeholders in education have shared goals for learners that we believe are so critical that they must be achieved to foster a high quality of life? Could it be that, because education is not a life-or-death enterprise that clearly links actions and accountability, we feel much less urgency toward learners than physicians, medical researchers, and patients feel in their medical endeavors? An alternative response is that we lack practice in working from a moral position to identify social problems and collectively find solutions.

Pragmatists would seek to develop partnerships where engagement is central to the work, where university- and school-based educators as well as students and community members bring their respective expertise to bear during deliberations, and where all stakeholders advocate for themselves to identify educational problems and inquiry designs. Ultimately, all stakeholders would be advocates for student learning.

Dimension #2—Moral obligation in the selection of research problems

Currently, many educational researchers are stepping back from their inquiry projects and the philosophical debates about the conduct of research to ask themselves these questions: Why do I engage in educational research? How meaningful is my research? and Who benefits from my work? Chall (1998) posed a similar question to her peers in literacy research: "What is the responsibility of scholars? Is it toward searching for new knowledge about the reading process? Or should it also include the responsibility of helping to solve the grave literacy problems facing us today?" (pp. 23–24). Dewey (1938/1981) would urge literacy researchers to consider problems we face in light of the institutional, social, political, and contextual influences surrounding the problems.

The formulation of research problems. As we construct research agendas with participants and think about

the ends we hope to influence, we must take more time than we have in the past to identify carefully and then outline the actual problem and its dimensions. Too often, we quickly pose research questions, spending most of our time on elegant designs or intensive analyses. As Dewey (1929/1987) warned in *The Quest for Certainty*, "The natural tendency of man is to do something at once, there is an impatience with suspense, and lust for immediate action" (p. 178). From a pragmatic perspective, more time must be spent talking about the problem with participants and other constituents, defining the contours and the ways that addressing one feature of a problem may contribute to understanding another, and thinking about the concerns and implications associated with our decisions. This stage is what Dewey characterized as "enjoying the doubtful" (p. 182). The effort at the inception of the study can result in stronger, richer efforts along the way.

Particular discernment for identifying what might be a useful focus of inquiry or a problem to solve usually rests with the researcher, or what Dewey called the expert. Campbell (1995) summarized Dewey's ideas about the role of experts: "To solve problems in our complex modern world requires us to think differently and those members of society with special experience or with special expertise may be particularly helpful in formulating problems and suggesting possible solutions" (p. 149). A pragmatic perspective requires that researchers share this power with participants; researchers come to the table with expertise, but other stakeholders also bring their knowledge and experience. Within this context, researchers are charged with teaching community members about methodological options available to understanding and solving problems. The sort of democratic dialogue Dewey envisioned in such a setting helps foster both understanding and community. Dewey (1927/1993b) observed that "the essential need... is the improvement in methods and conditions of debate, discussion, and persuasion" (p. 187). Such dialogue is an important skill, which is equally appropriate for citizens, researchers, and students. Matthew Lipman (1998) described dialogue as moving in the direction of two kinds of wholeness:

> On the one hand the mental acts form logical connections with one another. On the other hand, those who perform such acts form social relationships with one another. The first kind of wholeness is a completeness of meaning. The second kind, the interpersonal kind, moves toward a communal solidarity. (p. 208)

Within this process researchers lose some freedom in the formulation of problems, the way problems are addressed, and what is reported from the research. However, sharing of power is worthwhile when inquiry is viewed as responsive, meaningful, and credible to all participants.

Developing multiple, connected research initiatives. Along with broadening the collective of persons associated with inquiry and redefining the roles persons might assume within this process, there is a need to reconsider how we develop research agendas, identify problems, and craft studies. We propose a literacy inquiry agenda spanning three foci: (a) developing a set of critical problems, generated by a diverse group of stakeholders, that are foundational to large-scale research projects with multiple sites and community inquiry teams; (b) developing a set of critical problems generated at the local level by community inquiry teams; and (c) collectively identifying problems that interest individual researchers and that can be parsed into various facets to be addressed by individual expertise. Consistent with a pragmatic stance, we believe that on an international, national, local, and personal level researchers should consider Dewey's vision of inquiry as collectively generating research problems from actual social situations (practices) as identified by all stakeholders through practical discourse.

Researchers themselves pose the biggest challenge to taking a pragmatic stance in developing multiple, interconnected research foci. Wolcott (1992) in his discussion "Posturing in Qualitative Research" (positioning oneself strategically) illuminates the struggle researchers have when attempting to meet several, often competing, agendas, including powerful interests of their own:

> ...posturing is not only a matter of identifying a strategy and capitalizing on research talents, it is also a personal matter influenced by the kinds of information and kinds of memberships...available to and valued by academicians individually. Prior professional commitments...and future professional aspirations...also exert an influence and extract a corresponding commitment over the problems we select.... These commitments consciously or unconsciously influence our identification of problems or lead us to redefinition of problems that make them amenable to study in some particular way rather than in others. (pp. 41–42)

To Wolcott, research is ultimately a personal matter; we research things we enjoy, believe in, or feel passionately about. Nevertheless, the problems literacy researchers typically pose and the methods they select for solving these problems are almost always mediated by the trends highlighted in professional communities such as the National Reading Conference (NRC), the Society for the Scientific Study of Reading (SSSR), the International Reading Association (IRA), and the American Educational Research Association (AERA). Individual researchers want to position themselves professionally, socially, and culturally—they want their work to fit into acknowledged trends and to be acknowledged by respectable communities. Dewey and other pragma-

tists oppose the perspective of research as a personal matter, noting that research agendas should be public and socially grounded in intent and process. Inquiry not so grounded fails to serve the purpose of democratic reconstruction.

Embedded within the challenge of public vs. personal research agendas is the question of how the nature of research is influenced by the way researchers are positioned by the social, cultural, and historical contexts in which they conduct inquiry. Colleagues and administrators in the university system, K–12 school-based colleagues, and local, state, and national policy makers define these contexts. For example, researchers are valued in university settings for the innovative knowledge they generate and, like it or not, productivity in the form of quantity of articles in prestigious journals. Add to this narrow conceptualization of productivity the current institutional pressures to reform teacher education programs and a situation is created in which scholars actually have little time to be scholarly. In such a climate, research is often quickly conceived; data are collected, analyzed, and interpreted in a cursory manner; and reports of research are written in bits and pieces when time permits in outlets that university promotion and tenure committees find acceptable (but persons engaged in practice may not read). Thus, much of this research may have little effect on the practices of K–12 educators or on learners' lives. There is evidence that this institutional culture is changing, but it remains a formidable force that affects the character and quality of literacy inquiry.

Literacy research agendas and designs also are shaped by commitments researchers make to commercial publishers when they sign as authors. These scholars/authors often try to balance commitments to the profession with the economic interests of their publishers/employers. Finally, many researchers have strong commitments to addressing broad issues in education (e.g, tracking, assessment, busing) that sometimes displace more immediate subtle contextual issues that uniquely inform research from site to site. Researchers, who are pulled in many different directions as they engage in their work, can disenfranchise the very practitioners and students who are at the heart of the most crucial problems that need to be addressed.

In sum, neither literacy scholars nor prospective advocates of scholarship have clearly identified a broad set of issues that deserve unified, convergent efforts, although policy makers and funding agencies have done so. Further, literacy researchers and other stakeholders currently lack a coherent plan, a process, or the leadership to initiate such efforts. Despite the identified need for a shared research agenda, most literacy researchers also believe that opportunities must be provided for innovative, unconventional research that advances the field. This tension between large-scale and local research agendas, shared and individual agendas, and the role of research paradigms can be managed productively with considerable thought, effort, dialogue, and organization. A pragmatic stance to the formation of multiple yet connected research agendas could facilitate this effort.

Keeping the end in view when designing research. In maintaining a pragmatic stance, the selection and design of studies in the literacy field should be developed with the end in view. Traditionally, this end in view is a post hoc entity we call implications or recommendations rather than an a priori design issue. Pragmatic research conversations would begin with these questions: What do we hope to achieve at the conclusion of the study? Why is this end important for learners? The conversation about the end result could help participants better define problems and improve the design of studies, and this conversation could help participants focus on the specific social, cultural, and other contextual aspects that affect a particular inquiry.

Despite its apparent usefulness, an end-in-view perspective, grounded in social responsibility and democratic purposes, presents a new challenge in conducting research. In beginning a study, researchers typically review related research, carefully crafting hypotheses or guiding research questions, developing a design that best addresses questions, collecting and analyzing data, theorizing, and interpreting the results. It is possible that the end-in-view fixation may cause researchers to lose sight of the research process, including methodological possibilities, or of certain structural considerations as a project unfolds (Thompson, 1997).

Dimension #3—Reconsidering traditions, methodologies, and how we communicate findings

The knowledge we hold and the beliefs we subscribe to dictate what research questions we ask and for whom. Polkinghorne (1983) noted that our scholarship is defined as much by the self-interrogation about why we engage in inquiry as it is in the actual conduct of research. This self-inquiry promotes the use of a broad range of designs and methods but requires that we carefully articulate the assumptions undergirding various approaches and traditions that are the basis of our inquiry.

The use of multiple traditions within a study. Technical expertise and theoretical and methodological purity have been the hallmarks of quality in paradigmatically driven research. Researchers believe that if they attend to these elements, more credible findings will result. By contrast, a pragmatic stance values communities engaged in literacy research who focus on solving problems; the selection of the theoretical frameworks and

methodologies are tailored to the complexity of the problem and the promise of useful findings rather than discrete technical standards.

That said, we are not promoting the use of a-little-bit-of-this and a-little-bit-of-that inquiry. Particular frameworks or traditions and methodologies *do* have underlying assumptions, some of which are congruent with one another and some of which are not (see Jacob, 1987, for an in-depth discussion of this issue). But is it possible for literacy researchers to employ research traditions with incompatible assumptions in an attempt to explore multiple facets of a problem, to test or add depth to a primary analysis, or to offer additional, compelling evidence that appeals to wider groups of stakeholders who might then also find other less acceptable forms of data credible? We address this question in the next two sections.

The purity of traditions and methodologies vs. quality of use. A pragmatic stance promotes the examination of all assumptions underlying various traditions and encourages collaborative discussion about which could be adopted and which should be rejected. But researchers, in addressing problems, understand, select, employ, and discuss the various traditions and methodologies they use to design and engage in useful research rather than taking political positions aligned with paradigms.

Pitman and Maxwell (1992) discussed the pervasiveness of paradigm wars in spite of a substantial scholarly base offering many options and broad perspectives on inquiry. They contended that philosophical debates in research have become increasingly detached from the actual conduct of research. To address this detachment, they asked researchers to reflect on their *practice* and to critique the various approaches they use within a perspective or methodology (e.g., researchers would examine the quality of research practices used within educational ethnography). In actuality, we rarely systematically critique the quality of one another's use of traditions and methodologies.

From a pragmatic stance, using a variety of methodologies can either strengthen a study or lead to its downfall. The use of multimethodologies can add breadth and depth and numerical, pictorial, and narrative data to support themes, assertions, or findings. But these studies must still evidence the tenets of quality research. Many researchers are careful to ground their work in substantive theories from the field of literacy; nevertheless, these same scholars can sometimes be criticized for neglecting to use and exhibit understanding about the theoretical frameworks undergirding their methodologies. A classic example in literacy research is the popularity of qualitative or interpretive research, specifically educational ethnography. Wolcott (1992), writing about the newly embraced qualitative research methodologies in education, observed: "Qualitative studies completed today often fail to show evidence of the disciplinary lineages that spawned them...the innovative process in educational practice tends toward adaptation rather than adoption" (p. 38). Although Wolcott acknowledged that adaptations developed by educational researchers might have admirable traits despite their hybrid nature, to adopt a methodology, he contended, one must have studied its disciplinary lineage well. Educational researchers must strengthen their theoretical knowledge base in the disciplines that inform the methodologies they wish to draw upon and articulate this knowledge in both their practice and writings. These methodologies and frameworks might include not only ideas from across educational disciplines, but also frameworks from outside the current boundaries of education such as those grounded in policy studies, political theories, literacy theories, philosophy, or even biology.

Although the title Doctor of Philosophy is reminiscent of the days in which a broad education was more valued, academe, as already noted, currently does not support the development of broadly educated researchers. Neither does the academy support the development of inquiry communities with school and community collaborators, or with the potentially diverse groups of colleagues that pragmatic inquiry needs to thrive. Again, Foucault (1975/1997, trans. 1980) reminded us that the ways in which we structure knowledge in academe serve to create regimes of truth and structures of power and authority. Thus, a pragmatic turn in inquiry provides us with compelling challenges not only to the ways in which ideas are conceived and pursued, but also to the ways in which power and authority are structured among intellectuals, and society in general. The change we suggest has both philosophical and political ramifications.

Considering new traditions and methodologies. Concurrent with the need for new knowledge is an awareness of what knowledge bases we draw upon and which ones we inadvertently overlook. For example, we believe that literacy researchers should consider Scheurich and Young's (1997) discussion of race-based paradigms constructed via cultural and historical contexts. The authors argued that all current epistemologies and accompanying tensions (e.g., issues of qualitative vs. quantitative methodologies, objective vs. subjective reality, validity and paradigmatic issues in general) rise out of the social history of the dominant white race, thus reflecting and reinforcing that social history and racial group. This white dominance has negative results for people of color and, in particular, scholars of color (cf., Collins, 1991). We need to extend paradigms to address "epistemological racism," recognizing that dominant and subordinate racial groups "do not think and interpret realities

in the same way as White people because of their divergent structural positions, histories, and cultures" (Stanfield, 1985, p. 400). Scheurich and Young (1997) argued that even critical approaches (critical theory, feminism, lesbian/gay orientations, and critical postmodernism), where racism has been a focus, have been racially biased. A pragmatic perspective beckons literacy researchers to attend to how various racial groups select issues for inquiry, conceptualize research, interpret phenomena, and record results. This is a new epistemological issue that is critical to understanding literacy events in the next millennium.

Communicating the findings of research. We must consider how we relate the findings from our inquiry to other communities of inquirers, researchers within and across paradigmatic lines and disciplines, and individuals outside the research context (e.g., policy makers and the general public). Writing for multiple audiences and writing about ideas that others find useful (keeping the end in mind as one constructs a study) are important goals. Chall (1998) pointed out that literacy research is becoming more and more technical and complex, making it more difficult to translate findings in a written form that is understandable to practitioners and other researchers. From a pragmatic stance, we believe that the typical article format for sharing work should change to better illuminate complex concepts for a range of readers and to meet the needs of policy makers in terms of brevity (e.g., through the use of executive summaries), clarity, and elimination of jargon.

A shift in the expectations of journal editors and editorial review boards also will be needed to promote the publication of concise research reports while also recognizing the value of longer articles that detail theory and methodology. A pragmatic stance requires that we more carefully consider the audiences that we hope to inform with our inquiry—audiences that span far beyond our universities and research communities to local schools, communities, and state and federal agencies.

Technology also holds promise for offering new forms of representation that will display and explicate concepts that heretofore have been represented with flat text. For example, David Wray, of the University of Warwick, announced the formation of a new journal that would provide a series of abstracts of published research and other materials relating to literacy (post to the National Reading Conference listserv [nrcmail@asuvm.inre.asu.edu], February 1999). This journal, and others like it, would provide concise and accurate information for researchers and practitioners alike. Published accounts of research in new concise formats have the potential to reach a larger audience and inform practice, policy, and future inquiry efforts.

Conclusions

Many complex questions relating to how learners become and remain literate and how teachers can support this process remain uninvestigated. However, our past practices in selecting questions and formulating inquiry approaches must be adapted for the new millennium. An individual researcher's beliefs and expertise no longer can be the sole rationale for the research questions selected and pursued. Instead, the complexity of problems and social situations that affect practice and concern local constituents must be key to the creation of shared research agendas.

We have proposed the adoption of pragmatism as a new stance for academics and communities of inquirers. Pragmatism is not a paradigm adapted from those that are currently popular; rather, it is a revolutionary break in our thinking and practice relating to inquiry. As a literacy community we need to challenge ourselves to step back and think collectively and individually about the inquiry in which we are engaged. Is our research meaningful, credible, and prone to making a difference in students' learning and teachers' pedagogy? Does our inquiry work toward concrete alternatives for students and teachers? As Rorty explained, "For the pragmatists, the pattern of all inquiry—scientific as well as moral—is deliberation concerning the relative attractions of various concrete alternatives" (1982, p. 164). We see the goal of research at its best as practical rationality serving moral concerns. Pragmatic research for the new millennium can be a practical and hopeful inquiry, which avoids the arrogance of modernist empiricism and the angst of postmodern deconstructions. We can accomplish this new goal.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Reading teacher education in the next millennium: What your grandmother's teacher didn't know that your granddaughter's teacher should

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It is likely that your grandparents were taught to read in school by teachers who had no more than 2 years of preparation beyond their high school diploma. In their normal school studies, or their equivalent, your grandparents' teachers probably didn't take any specific courses on how to teach reading. Instead, they took one or two general courses in pedagogical methods and a series of content area courses on topics related directly to the subject areas of the elementary curriculum (Monroe, 1952).

From our perspective today, and with our knowledge of the remarkable economic progress that has been made over the past 50 years, we can judge the efforts of these teachers as heroic in the context of limited resources. But the context for teaching has changed as our society has changed, just as the context for literacy practices has changed. Yesterday's standards for teaching and teacher education will not support the kinds of learning that tomorrow's teachers must nurture among students who will be asked, in the next millennium, to meet literacy demands that our grandparents could not fathom.

Who will teach your grandchildren to read? How will their teachers be prepared? What will they know? What will they do? We can only speculate on the answers to these important questions. The possibilities are endless, and the reality will be shaped by many factors, some of which are broadly societal, outside the realm of reading education and reading research. Consider the following projections for the start of the 21st century:

1. The children of the baby-boom generation are already filling U.S. elementary schools to capacity, and their numbers will continue to escalate over the next 3 decades. Between 1996 and 2006, total public and private school enrollment will rise from 51.7 million to a record 54.6 million (U.S. Department of Education, 1996).
2. The proportion of children from poverty and second-language backgrounds will continue to grow. For example, it is projected that between 2000 and 2020 there will be 47% more Hispanic children aged 5–13 in U.S. schools than are there today (National Center for Educational Statistics, 1997). These children have not been served well by the educational system in the past. With increasing numbers the challenge is likely to continue to grow.
3. The teaching force is aging rapidly. Retirements, coupled with teacher attrition rates (nearly 30% quit teach-

ing during their first 3 years), could lead to a tremendous teacher shortage by the year 2010. "Over the next decade we will hire more than 2 million teachers for America's schools. More than half the teachers who will be teaching ten years from now will be hired during the next decade" (Darling-Hammond, 1996, p. 5). By the year 2006 the U.S. will need 190,000 additional teachers (U.S. Department of Education, 1996).

4. The profession struggles to attract and retain teachers (Archer, 1999), especially teachers who represent the diversity of the students served and the goals embraced. At the elementary levels, U.S. teachers continue to be mostly white, mostly female, and mostly middle class in background (Grant & Secada, 1990). We express a value for diverse thinking and creativity, and yet the teaching force is largely conservative and socialized toward traditional thinking and values (Zeichner, 1989; Zeichner & Tabachnick, 1985).
5. The literacy demands on the workforce of the next millennium, in particular the use of electronic texts, will far outstrip anything we have known in the past (Reinking, 1995). It is quite possible that many people regarded as functionally literate today will live to see themselves become functionally illiterate.

Each of these projections presents a stark challenge to the future of reading teacher education. Collectively they present a daunting scenario.

Some of the factors that will shape the future of teacher education lie within our purview as a reading research community. We contend that the reality that lies 15–25 years ahead in reading teacher education will be shaped substantially by the research agenda we enact today. It is our goal in this article to make recommendations regarding this research agenda based on a consideration of where we have traveled in the past and where we find ourselves located in the present. We will go beyond a traditional retrospective synthesis of the findings from existing research, to a prospective envisionment of the challenges the future holds and the critical role that research must play in setting a productive course of action. We structure our look-ahead around five basic questions:

1. Is teacher preparation effective?
2. What do we know about training teachers of reading?
3. What do we know about teaching teachers of reading?
4. What will it be—training or teaching teachers of reading?
5. What should our research agenda for reading teacher education look like?

We have not selected these questions because they are the ones for which we have answers. We have posed them because we believe that they embody the issues that will make our conversations regarding future research efforts most productive.

Is teacher preparation effective?

There is no simple, direct answer to this question. Rather, we must assume a number of different perspectives on the goals and processes of teacher education to gather converging evidence regarding the effectiveness of teacher education programs. In examining the issues related to this question, we will begin with a look at the general teacher education literature and later return to focus specifically on the issues of reading teacher education. We have identified five perspectives that contribute to our understanding of the effects of teacher preparation programs.

Adopting a *service* model, we can address the question of effectiveness by looking at the satisfaction levels of those who participate in these programs (i.e., the clients). Here we find generally high levels of satisfaction with the patterns suggesting program improvements over the past decade. For example, the U.S. National Center for Educational Statistics (1995) reported on a survey of teacher satisfaction that compares perceived quality between all U.S. teachers and those with less than 5 years' experience. For 1984, they reported that 46% of the teachers expressed a very high level of satisfaction with their preservice programs as compared with 58% in 1995. They found that 64% of those teachers with less than 5 years' experience expressed a very high level of satisfaction. In another study, they reported on teacher satisfaction with their teacher preparation program for teaching students from a variety of ethnic backgrounds. These data were collected on the same group of teachers before and after their first year of teaching. In the before teaching condition they found 81% of the teachers gave a positive response to the question. After the first year of teaching the number dropped to 70% in the affirmative. The findings from these studies and others suggest a generally positive regard for teacher preparation.

Adopting a *product* perspective on teacher preparation we can examine the data from teacher examinations, licensing procedures, and performance-based assessments. The vast majority of students completing teacher education programs pass the initial certification examinations, either meeting or exceeding the standards set by their states. Similarly, the studies of first-year teacher induction programs suggest that the vast majority complete these programs with high ratings on performance assessments while they are teaching. Principal ratings on the qualities of new teachers entering the teaching force are high (Hoffman, Edwards, O'Neal, Barnes, & Paulissen, 1986).

Adopting an *evaluation* perspective on teacher preparation we can examine the data on program evaluations conducted by several major teacher education programs across the U.S. (e.g., Ayers, 1986). These studies

have typically not just examined the quality of the graduates as they enter the teaching force, but have also attempted to map the features and emphases within preservice programs onto specific teaching practices in their first year of teaching. Although the vast majority of teacher education programs in the country do not collect follow up or longitudinal data on their graduates, those that do have documented the program's impact on teaching qualities.

Adopting a *productivity* perspective on teacher preparation we can examine the data from studies that have assessed the impact of teacher education on student learning. The studies that fall into this perspective tend to be large-scale gross analyses of relationships between student test scores and resource allocations (including the level of teaching experience, teacher education levels, etc.). Ferguson (1991) examined the relationship between student scores on a state-mandated skills test in Texas and a number of resource allocation variables including the scores of the teachers on another state-mandated test. He found that the variation in teacher test scores accounted for a statistically significant portion of the variance in student achievement. This analysis included complete data on teachers and students in 900 school districts (over 80% of the school districts in the state). He also reported similar positive effects on pupil test scores for teaching experience, advanced studies (i.e., positive effects for master's degrees in Grades 1 through 7), and class size (i.e., larger class sizes leading to decreases in student scores). Greenwald, Hedges, and Lane (1996) explored similar issues in a meta-analysis of input-output studies relating educational resource allocation to variation in pupil test scores. Positive effects were found for levels of teacher education and experience. In one analysis, they reported that increased allocations of resources will reap the greatest rewards if the money is invested in teacher education. After reviewing the literature comparing nontraditional with traditional programs, Evertson, Hawley, and Zlotnik (1985) concluded that traditional programs look favorable, for the most part, in terms of outcome variables considered.

Finally, adopting an *experimental design* perspective we find more evidence on the positive effects of teacher education. We are not aware of any pure experiments in teacher education, where, for example, teacher education was withheld from one group while provided to another; however, a number of studies have compared the teaching performance of graduates from traditional programs with teachers certified through alternate or emergency certification procedures. These studies suggest that the teaching performance, satisfaction levels, and students' learning in the classroom are inferior for the nontraditional students (Ashton & Crocker, 1987).

While most of these studies, regardless of perspective, fall short in identifying the qualities of effective teacher education practices or programs, they are encouraging in documenting broad positive impact of teacher preparation. While most of the studies fail to offer specific information or guidance in matters of reading teacher education, they do suggest that a careful inspection of the reading teacher education literature has the potential to reveal similar patterns of excellence and impact.

What do we know about the training of teachers of reading?

In this section, and the one that follows, we will make some critical distinctions between the terms *training* and *teaching* teachers. We will argue that the differences are not just superficial, semantic labeling issues, but rather they cut to the very heart of understanding the complexity of teacher education and achieving excellence in our profession.

We will use *training* to refer to those direct actions of a teacher that are designed to enhance a learner's ability to do something fluently and efficiently. In a very direct sense, we can map the construct of training onto the notion of skill. Skills are behavioral routines that operate, when internalized, with automaticity and a minimum amount of cognitive attention or inspection. While there is a tendency to locate skill learning at a very simple level of operation, many would argue the concept of skills, and thus skills training, can extend up to complex cognitive processes (e.g., higher level thinking skills, problem-solving skills, and even attitudes). Behavioral psychology, which reached its high point of influence in U.S. educational psychology during the 1960s and 1970s, became the theoretical basis for framing this view of learning in regard to the training of teachers. In many ways, the training perspective is aligned with a technological perspective on teaching. By contrast, as we argue later in this essay, we regard *teaching* as the intentional actions of a teacher to promote personal control over and responsibility for learning within those who are taught.

Competency-based/performance-based teacher education

Training models depend on the identification of specific behavioral and psychological routines that become the target of interventions. The earliest iterations of teacher training following this perspective were found in the competency-based teacher education movement. The most notable effort within this conception was represented in the U.S. Office of Education's effort to improve preservice teacher education using a skills/training model

(Cruickshank, 1970). Successful bidders in this grant competition were required to describe the teacher preparation program in terms of teacher competencies. Numerous lists of competencies were produced as a result of this initiative. The 1,119 competencies (i.e., behaviors), for example, in the Florida Catalog of Teacher Competencies (Dodl et al., 1972) are organized under the headings of assessing and evaluating student behavior, planning instruction, conducting and implementing instruction, performing administrative duties, communicating, developing personal skills, and developing pupil-self.

Sartain and Stanton (1974) described the efforts of the International Reading Association (IRA) in the development of a set of modules for the preparation of reading teachers that drew heavily on a competency-based perspective. The International Reading Association Commission on High-Quality Teacher Education identified the following 17 essential components of a professional development program:

1. Understanding the English Language as a Communication System
2. Interaction with Parents and Community
3. Instructional Planning: Curriculum and Approaches
4. Developing Language Fluency and Perceptual Abilities in Early Childhood
5. Continued Language Development in Social Settings
6. Teaching Word-Attack Skills
7. Developing Comprehension: Analysis of Meaning
8. Developing Comprehension: Synthesis and Generalization
9. Developing Comprehension: Information Acquisition
10. Developing Literary Appreciation: Young Children
11. Developing Literary Appreciation: Latency Years
12. Developing Literary Appreciation: Young Adults
13. Diagnostic Evaluation of Reading Progress
14. School and Classroom Organization for Diagnostic Teaching
15. Adapting Instruction to Varied Linguistic Backgrounds
16. Treatment of Special Reading Difficulties
17. Initiating Improvements in School Programs

Instructional modules were developed in each of these areas. The modules contained a list of "teacher competencies to be attained—a precise, behavioral statement of the expected outcomes" (Sartain, 1974, p. 35). In addition, each of the modules specifies criteria behaviors to specify learning outcomes, suggested learning experiences, and a continuing assessment plan. Other than the description of their development and the contents of these modules, we could not locate any published evaluation of their use in teacher education programs.

The competency-based movement peaked in the late 1970s. Roth's (1976) review of competency-based teacher education programs in 56 colleges and universities was inconclusive regarding changes in teacher education. What had been heralded by many within the profession as the future of teacher education all but vanished in less than a decade. Explanations regarding the demise of the competency-based movement ranged from institutionalized resistance at the college/university level, to fears of the dehumanization of teacher education, to a questioning of the sparse research literature supporting such an initiative, to a growing distrust of anything in teaching remotely associated with a behaviorist view.

The teaching effectiveness movement

Certainly the emergence of the research in the teaching movement must be considered as another contributing factor in the demise of the competency-based teacher education movement (see Tom, 1984, for an enlightening discussion of the relationship between the Performance-Based Teacher Education movement and the teacher effectiveness movement). Research in teacher effectiveness, specifically the research within the process-product paradigm, offered teacher educators a potential curriculum for training that was more defensible than the skills listed in the competency modules—even though there was considerable overlap at times. The compelling feature of this knowledge base was its grounding in teaching practices that were directly related to growth in student achievement. The fact that these effective practices were typically represented as specific teaching behaviors fit perfectly into a training model. The paradigm and the related findings have been described in detail in other sources both with respect to general teaching practices (Brophy & Good, 1986; Dunkin & Biddle, 1974) and reading in particular (Duffy, 1981; Hoffman, 1986; Rupley, Wise, & Logan, 1986). We focus our consideration here on the findings from this research as a basis for a new direction in teacher education.

Rosenshine and Furst (1973) made an impassioned call for a descriptive-correlational-experimental feedback loop in research in teaching. The science of teaching could best be advanced by taking the findings on effective teaching behaviors uncovered through correlational studies and putting them to the test in true experimental studies where the causal relationships are fully revealed. This became the focus for much of the research in the U.S. teaching movement during the late 1970s and early 1980s. Since this research typically involved the training of teachers in particular teaching practices, the lines between research in teaching and research in teacher education began to blur. Studies of this type proliferated and ranged across content areas (e.g., Good & Grouws, 1977, in mathematics), teaching processes (e.g., Emmer, Evertson, & Anderson, 1980, in classroom management), and age levels (e.g., Stallings & Kaskowitz, 1974, in early

childhood, and Stallings, Needels, & Stayrook, 1979, high-school-aged students).

Anderson, Evertson, and Brophy's (1979) study of first-grade reading group instruction is instructive regarding this line of research. These researchers extrapolated a set of 22 research-based principles from their earlier process-product correlation studies. These principles ranged across a variety of areas from turn-taking practices in oral reading recitations to teacher feedback to inappropriate responses. Experimental teachers were trained in the principles and control teachers were not. Implementation of the principles was systematically monitored and pupil achievement measured. The analysis focused on the degree to which the principles were successfully implemented under the experimental training conditions as well as on the relationship between the implementation of each particular principle and student achievement growth. The findings were interpreted as corroboration for the causal relationship of a number of the principles as influential on achievement. They were also interpreted in terms of a demonstration of the potential connection between research in teaching and teacher education.

Griffin and Barnes (1986) combined the research on effective staff development with the findings from the research in teaching literature. Teachers in the experimental group and the staff developers in the experimental group were trained in effective practices. Implementation was monitored through direct observations of teachers and analysis of the logs and journals of the staff developers. Positive effects for the training were observed for both the teachers and the staff developers. This study provided a valuable linking of training at the teacher and the teacher trainer levels.

The findings from the process-product literature also entered into U.S. teacher education through the teacher evaluation and certification standards route. During the mid-1980s, many states began to develop and implement induction/evaluation programs for beginning teachers that would delay full certification until the demonstration of competence in actual classroom teaching. These programs were intended both to screen out the incompetent and to provide support for those struggling through their first year of teaching (Defino & Hoffman, 1984). The evaluation instruments used for these programs drew heavily on the process-product research literature. In turn, the induction programs to support first-year teachers focused on training in the specific skills and strategies that had been identified. In a study of two state-mandated programs of this type, Hoffman and his colleagues found some positive effects for such programs in supporting teachers through their first year of teaching, but they found little evidence that the programs or the criteria were effective in screening out incompetent teachers (Hoffman et al., 1986).

While much of the work just described tended to focus on specific behaviors or routines drawn out of the process-product literature, other efforts tended to focus on the efficacy of larger constructs that might become the basis for teacher training. The work in the development of a direct instruction model is illustrative here. The roots of direct instruction, as it is connected to the research in teaching movement, are to be found in the Follow-Through studies (Stallings & Kaskowitz, 1974), the Beginning Teacher Evaluation Studies (BTES, Fisher et al., 1978) and the syntheses of Barak Rosenshine (Rosenshine, 1971; Rosenshine & Stevens, 1984). The direct instruction (DI) model proved to be eminently trainable to teachers under experimental conditions, effective in promoting student engagement in classroom tasks as demonstrated through classroom observations, and statistically significantly related to growth in pupil achievement as measured on standardized tests (Myer, 1988).

Paralleling this emerging conception of direct instruction in the process-product literature we also find the writings of Madeline Hunter (Hunter, 1985, 1993) and Joyce and Showers (1988) as influential in the staff development arena. Models of teaching and the direct instruction model itself began to coalesce in the late 1980s and on into the 1990s as a favorite teacher training model. As we point out later, the influence of these models has gradually atrophied since the middle 1980s, although they appear to be resurfacing recently as more and more scholars return to the study of effective teaching and schooling, especially for students at risk for failure to learn to read, write, and compute effectively (e.g., Puma et al., 1997; Stringfield, Millsap, & Herman, 1997; Wharton-MacDonald, Pressley, & Hampston, 1998).

Programmatic models for reading teacher training

The focus on specific effective teaching behaviors as the basis for teacher training, and even the focus on a generic direct instruction model of teaching, has given way in recent years to packaged programs. These programs can be characterized as more content specific, more age specific, and more organizationally complex than their forerunners. Reading Recovery, as a specific intervention program, is probably the most notable in example in the field of reading, but it is not alone in this regard. The Success for All program has its roots firmly planted in a series of studies exploring effective reading instruction. There are other examples. It is not our intent here to review the full range of these programs or their effectiveness. We will simply point out that the conception of teaching effectiveness and teacher training has expanded to include consideration of the context in which

teachers work (i.e., the context is also a target for the interventions, not just the teacher), the refinement of teacher training into the trainer of trainer models, ongoing data gathering for program validation and program improvement purposes, and the protection of proprietary rights to the materials and processes used.

Reading Recovery. The Reading Recovery program was developed in New Zealand by Marie Clay. The program was formally introduced into the United States through a collaborative arrangement with Ohio State University (Lyons, Pinnell, & DeFord, 1993). The program offers instruction at the first-grade level to struggling readers in need of acceleration. Students enrolled in the program are tutored intensively for 30 minutes daily. In theory, the students being tutored are reading well enough to be discontinued after 12 to 14 weeks of remedial help.

Studies in New Zealand and in the United States suggest that this program has been highly effective in accelerating the development of reading skills (Clay, 1990a, 1990b; Lyons et al., 1993). In a comprehensive review of the studies examining the effectiveness of Reading Recovery, Shanahan and Barr (1995) reported favorably on the findings from studies showing positive effects, concluding that many of the students served by Reading Recovery are brought up to the level of their average-achieving peers. However, they express some concerns over such methodological issues (e.g., the exclusion of certain students who were not responding well to the program from the data analysis in some evaluation studies), program costs, and professional development.

Of most interest to us is the model of teacher training/education implicit in the implementation of Reading Recovery (see Gaffney & Anderson, 1991). The training is intensive, long term and universal (everyone at every level participates). Reading Recovery teachers are enrolled in over a year of intensive training in the strategies and routines to be followed in the tutorial. "While training is delivered during two hour inservice sessions at one or two weekly intervals over the period of a year, teachers are working with children and carrying out other teaching duties throughout the period they are in training" (Clay, 1987, p. 45). The training involves a great deal of online reflection about teaching. This is facilitated by a one-way mirror set-up. One trainee conducts a live lesson with an individual child behind the glass, while the rest of the class looks on and, with the prompting and probing of the trainer, conducts an on-line critique of the lesson, trying to ferret out the bases of the trainee's decisions and alternative practices he or she might have tried at key points. Afterward, the behind-the-glass trainee joins the rest of the class for a recapitulation of the lesson and the critique. This type of reflective but focused critique helps to ensure the high levels of fidelity to the program elements and philosophy that are demanded both during the initial training as well as in the follow-up phases. And there is some evidence (Gaffney & Anderson, 1991) to suggest that the reflection teachers engage in during these training sessions shows up as changes in their classroom teaching repertoire; that is, they work differently with groups in their classrooms because they possess new knowledge about learning to read. While containing aspects of an educative (what we are calling teaching teachers) model of teacher learning, the model in Reading Recovery must, in the final analysis, be regarded either as a training model, because of its emphasis on the mastery of a specific set of teaching procedures, or as an example of training set in the context of teaching, a topic to which we will return as we speculate about the future of this line of research.

Success for All. Robert Slavin and colleagues have developed a program designed to ensure that every child in a school is reading on grade level by the end of the third grade (Slavin, Madden, Karweit, Livermon, & Dolan, 1990). The program is designed as a schoolwide intervention and includes components focused at the preschool and kindergarten levels up through the intermediate grades. The literacy program is intensive and varied and is centered in a daily period of reading instructional time. The content and processes of the reading period are developed from classroom research into the CIRC model (Cooperative Integrated Reading and Composition) conducted at Johns Hopkins University (Stevens, Madden, Slavin, & Farnish, 1987). Students are grouped for instruction (cross-age) by skill level for this block. Instructional group size is reduced to 15 students per teacher for the reading block. Tutoring support is also available to students in an additional 20-minute daily period.

Monitoring of student progress is a critical part of the Success for All model. Children's progress is assessed four times a year. Training for teachers is intensive and the implementation of the program elements carefully monitored. The adoption of the Success for All model in a school requires a formal commitment to the effort by the faculty and staff. The initial reports regarding the effectiveness of the program have been positive (Slavin, Madden, Karweit, Donlan, & Wasik, 1992). However, some recent reports raised questions regarding effectiveness (e.g., Jones, Gottfredson, & Gottfredson, 1997). Program advocates argue that the degree of success of the program is directly tied to the fidelity of implementation. Fully implemented programs are required for success to result in challenging settings (Nunnery, 1997), and, of course, full implementation is highly dependent upon the fidelity of the staff development program to the goals and procedures of Success for All. Staff develop-

ment is a key feature of the model; each site, in fact, has a full-time coordinator whose major responsibility is to conduct staff development sessions that initiate teachers into the routines and sustain their continued use throughout the duration of the program.

We feature these two programs in our discussion because of the high levels of popularity they enjoy. While there are important differences in their philosophical underpinnings regarding reading, reading acquisition, and intervention, there are strong similarities with respect to a view of teacher development. They share a commitment to the systematic training of teachers as a critical element to improvement. Both programs are school based, and both programs are connected to broadly conceived reform initiatives (Clay, 1990a, 1990b; Cooper, Slavin, & Madden, 1996). With their emphasis on learning an explicit set of procedures and routines they bring a training, not a teaching, model to the question of how best to promote teacher learning.

The critical elements of teacher training

The findings related to teacher training are compelling. We know how to train teachers. The elements of effective training can be described with some confidence (Sparks & Loucks-Horsley, 1990). Cruickshank and Metcalf (1990) summarized the findings from the literature on training in terms of the following elements:

1. Establish clear performance goals and communicate them to learners.
2. Ensure that learners are aware of the requisite skill level of mastery.
3. Determine learners' present skill level.
4. Introduce only a few basic rules during early learning stages.
5. Build upon learners' present skill level during early learning stages.
6. Ensure during the initial acquisition stage, a basic, essential conceptual understanding of the skill to be learned—when and why it is used.
7. Demonstrate during the initial stage what skill performance should look like.
8. Provide opportunities for the learners to discuss demonstrations.
9. Provide sufficient, spaced, skill practice after understanding has been developed.
10. See that practice of the skill is followed by knowledge of the results.
11. Provide frequent knowledge of the results early in the learning process.
12. Provide knowledge of results after incorrect performance.
13. Delay knowledge of results when the learner is beyond the initial stage of learning.
14. Provide for transfer of training that is enhanced by maximizing similarity between the training and the natural environment, overlearning salient features of the skills, providing for extensive and varied practice, using delayed feedback, and inducing reflection and occasional testing.
15. Provide full support and reinforcement for the use of skills in natural settings.

Variations in the labeling, ordering, and emphasis on some of these aspects of skill teaching abound, but the essential elements are represented in these 15 points.

What do we know about teaching teachers of reading?

We find value in Green's (1971) distinctions related to teaching and training. He argues for teaching as a more general, overarching construct focused on purposeful actions designed to promote learning. Training sits alongside a set of other interactive approaches, such as conditioning, instructing, and indoctrinating, all of which share the attribute of situating knowledge and authority within the teacher rather than the learner. We argue, using this view, that training is an incomplete and insufficient construct on which to base our models of teacher preparation. It may get teachers through some of the basic routines and procedures they need for classroom survival, but it will not help teachers develop the personal and professional commitment to lifelong learning required by those teachers who want to confront the complexities and contradictions of teaching.

Reading is a complex and ill-structured domain; it cries out for the sorts of multiple models and metaphors documented as necessary in other ill-structured domains such as medicine and film criticism (Spiro & Jengh, 1990). By analogy, we argue that training is equally as insufficient and incomplete as a model for preparing readers. There are aspects of reading (and writing) that most certainly can and should be trained. But there are also complexities of reading that can only be fostered in the context of a balanced approach that is considerate of the relationship between learning goals and teaching strategies. The same holds true for reading teacher education. Our teaching of teachers must take a broad approach in selecting the strategies that are employed to nurture excellence.

Nothing in what we will present here should be interpreted as pejorative regarding the elements of teacher training described in the previous section. Our goal is not to reject training as a useful heuristic for helping teachers acquire a part of their teaching repertoire but to situate training within a broader vision of teaching and teacher learning.

We base this argument on the findings from research in teaching that have revealed the qualities of expertise that go beyond the level of teaching behaviors. The process-product paradigm for teaching was largely abandoned in the mid-1980s because it had taken us about as far as we could go in understanding the complexity of teaching (Shulman, 1986). It did not take us where we needed to go—to the development of teacher knowledge; the nature of teacher knowledge; and the reflective, adaptive, and responsive aspects of teaching. These elusive but important entities, which seemed so important even from a prima facie analysis, just could not be characterized through the skill-level analysis and interpretation. Interestingly, the impetus for this line of work parallels the evolution of the impetus for the process-product movement itself. The fundamental advances in research in teaching emerged as researchers moved into classrooms to understand teaching. Similarly, fundamental advances in teacher education are emerging as researchers have begun to study directly the processes and contexts of teacher learning, including both the college classroom and the classrooms in our schools.

And so, we begin this section with an answer of "no" to the question "Do we know how to teach teachers of reading?"—but we hasten to add that we are learning a great deal from research that is ongoing, much of it in the area of reading education. We will inspect, in this section, some of the promising programs of research in reading teacher education for what they might reveal.

First, though, some conceptual preliminaries. New theoretical insights have made this sort of analysis more accessible than ever before. Recently, both Richardson and Placier (in press) and Cochran-Smith and Lytle (in press) have provided useful heuristics for understanding the essence of teaching teachers. Cochran-Smith and Lytle (in press) distinguish three approaches to understanding teacher learning: knowledge-*for*-practice, knowledge-*in*-practice, and knowledge-*of*-practice. In the knowledge-*for*-practice tradition of teacher learning, teachers are provided—usually, though not necessarily, by being told—the knowledge they will need to be effective teachers by more knowledgeable others, usually university professors. In the knowledge-*in*-practice approach, teachers discover the knowledge they need in the field as they reflect on and critique their own practice, either individually or in some collaborative arrangement. In the knowledge-*of*-practice approach, teachers, invariably in community settings, construct their own knowledge of practice through deliberate inquiry, which may well involve ideas and experiences that emerge from their own practice as well as those codified as formal knowledge within the profession. Cochran-Smith and Lytle value the knowledge-*of*-practice conception of teacher learning because of their conviction that knowledge thusly constructed is the only truly professional knowledge, the only knowledge that will sustain teachers through the exigencies of daily practice.

Richardson and Placier (in press), because their topic is teacher change, focus on learning in school settings. A major distinction in their treatment of teacher change is between empirical-rational and normative-reeducative approaches (after Chin & Benne, 1969). In the former, when an innovation is deemed desirable, someone (other than a teacher) initiates professional development; "teachers are told about it, it is demonstrated to them, and, as rational human beings, they are expected to implement it in their classrooms" (Richardson & Placier, in press, p. 2). In this view, teacher change (and teacher learning) is a necessary evil—externally imposed, difficult, and painful, but needed for improvement in student learning. This is very much in the classic dissemination and technology transfer tradition spawned by the enlightenment and the modernist research tradition emanating from it (Gallagher, Goudvis, & Pearson, 1988): Give people new information (i.e., the truth) and it (the truth) will make them free. This is very much like Cochran-Smith and Lytle's (in press) knowledge-*for*-practice conception of teacher learning. Prototypic examples of the rational-empirical approach would be the teacher education reforms emanating from the effective teaching movement discussed earlier. By contrast, in the normative-reeducative approach, control is exercised by teachers who have voluntarily decided that change is required; they set the agenda, engage in the inquiry, and determine the topics and resources needed. Outsiders such as administrators or university facilitators might be involved, but only in facilitating or advisory capacities. Richardson and Placier's normative-reeducative approach appears to embrace both the knowledge-*in*-practice and the knowledge-*of*-practice conceptions of teacher learning detailed by Cochran-Smith and Lytle, although with a clear bias for the knowledge-*of*-practice approach, with its emphasis on teachers constructing knowledge through deliberate inquiry in response to a variety of experiences and information sources.

Within reading education, an interesting illustration of the movement toward this tradition is represented in the work of Gerald Duffy and his colleagues. Duffy, in his presidential address to the National Reading Conference, described his intellectual growth from an implanting of effective skills and strategies view of teacher education to more teacher-centered, deliberative models. He argued that our reading teacher education models must be directed toward the development of empowered teachers who are in control of their own thinking and actions. He cautioned against a wide range of disempower-

ing practices that exist, not only within our teacher education programs, but also within the practices of reading teacher education researchers themselves. He argued:

> we must make a fundamental shift from faith in simple answers, from trying to find simple solutions, simple procedures, simple packages of materials teachers can be directed to follow. Instead, we must take a more realistic view, one which Roehler (1990) calls "embracing the complexities." (Duffy, 1991, p. 15)

One of the more ambitious studies within this emerging tradition was carried out by Richardson and her colleagues (see Anders & Richardson, 1991; Placier & Hamilton, 1994; Richardson & Hamilton, 1994). The researchers worked with 39 intermediate-grade (3–6) teachers over a period of 3 years, examining changes in their beliefs and practices in response to readings and discussions about improving students' reading comprehension. A major focus of their research was the development of a theory about the relationship between teacher beliefs and practices; indeed, a major breakthrough was the finding that in their naturalistic (under local teacher control) change setting, teachers often changed their beliefs prior to changing their practices (or changed beliefs interactively with changes in practice), thus contradicting the more common finding, especially in studies of mandated change, of changes in practice preceding changes in beliefs.

Over the 3-year period of the study they found that both beliefs and practices changed in ways that were consistent with the ideas (dubbed practical arguments, after Fenstermacher, 1986, 1994) arising from dyadic and larger group discussions. It appeared that teachers were, in a manner consistent with Cochran-Smith and Lytle's (in press) knowledge-*of*-practice approach, constructing new knowledge of teaching in response to both external (the readings brought in by the university partners) and local ideas and experiences. It is worth noting that this group of researchers was able to document increased learning among students of the teachers engaged in the staff development (Bos & Anders, 1994) as well as a disposition to continue to reflect on and change their practices well after the formal conclusion of the research study (Valdez, 1992). The Valdez study is classic in its embodiment of the principles underlying the normative-reeducative approach and, in our view, the knowledge-*for*-practice conception. As Richardson and Placier (in press) noted:

> The teachers had become confident in their decision-making abilities and took responsibility for what was happening in their classrooms. Thus they had developed a strong sense of individual autonomy and felt empowered to make deliberate and thoughtful changes in their classrooms. (p. 28)

In the Metcalf Project, Tierney, Tucker, Gallagher, Crismore, and Pearson (1988) conducted a 2-year study cut from the same cloth. Using the model of teacher as researcher (Goswami & Stillman, 1987; Lytle, in press; Lytle & Cochran-Smith, 1992), they documented the teacher learning, curriculum change, and student learning that occurs when individual teachers take charge of their own professional development within a collaborative setting. The approach to teacher research within a collegial study group involved several steps and activities. Teachers found their own problems and questions, designed their own approaches to studying them, shared their work with colleagues, supported colleagues in similar endeavors by critiquing their work, and participated in public dissemination about the project. Moll (1992), as a part of his larger funds of knowledge project, engaged teachers in a different model of research. He involved them as community ethnographers to encourage them to learn more about the Latino community in which their children and their families lived and worked. The net result was substantial learning on the part of the teachers, leading to a documented increase in their culturally relevant pedagogy.

Teacher as researcher is but one of many collaborative models in place in today's schools. Other models of collaboration have an equally long and illustrious history (see Cochran-Smith & Lytle, in press, for a full treatment of teacher learning communities). We have been involved (separately, not jointly) in learning communities organized to address dilemmas around the problems of classroom assessment. In addition to attempting to improve assessment practices, these collaborations provided opportunities to examine teacher learning when it is focused on highly specific goals. While not directly germane to this agenda, it is worth noting that in all of these efforts, as well as others not directly related to teacher learning (see Pearson, Spalding, & Myers, 1998), discussions of assessment tools lead almost inevitably to discussions of curriculum and teaching. Teachers want to know what sorts of teaching led to the artifacts in question; thus, discussions of better ways to assess student learning appear to be useful catalysts for discussions of practice.

In a series of studies, Pearson and his collaborators (Sarroub, Lycke, & Pearson, 1997; Sarroub, Pearson, Dykema, & Lloyd, 1997) have examined teacher learning, teacher practice, and student response to new assessment initiatives. In a junior high school setting (Sarroub, Lycke et al., 1997; Sarroub, Pearson et al., 1997), they found that not only the activities, which focused on building a consequential English language arts portfolio based upon new state standards, but the school-university collaboration itself influenced teacher learning and the evolution of roles played by the teachers in the effort. In the case

of one teacher, the collaboration became a site for reconstructing her entire English curriculum; in the case of a second, the portfolio became a way of engaging students in reflections on their own growth as readers and writers. Most significant in the elementary ESL setting was the evolution of roles played by university and school members of the collaborative (see McVee & Pearson, 1997), from the more traditional division of labor in which university folks do the research and school folks implement the practices to a model of shared responsibility for all roles. In Vygotskian terms (after Gavelek & Raphael, 1996), the teachers literally appropriated the discourse, tools, and roles of researchers as the collaboration played itself out. The impact on student learning in both the junior high setting and the elementary ESL setting was evident in increased student capacity to reflect on and evaluate their own progress as readers, writers, and speakers.

Hoffman and his colleagues worked with a group of first-grade teachers who had become concerned about the pernicious influence that standardized assessments were having on their students and their own teaching of early reading and mathematics (Hoffman, Roser, & Worthy, 1998). They petitioned for and were granted a waiver from standardized testing in their classrooms. In its place they worked to develop a performance-based assessment plan that would provide data useful to teachers for making classroom decisions and to the administration for making higher level decisions. The PALM (Performance Assessment in Language Arts and Mathematics) system was implemented and evaluated in a yearlong study. The study yielded compelling findings regarding the potential for this assessment plan to provide data that was useful to both audiences. In addition, the conceptualization, planning, implementation, and evaluation processes proved to have a powerful impact on the participating teachers' professional development.

It is important, we believe, that all of the examples we selected to document teaching teachers come from inservice settings in schools rather than preservice settings in universities. Some scholars have documented attempts to create undergraduate classroom communities in literacy education (e.g., Florio-Ruane, 1994). We are not sure why this discontinuity exists. It could be that we have a naive view that novices require more direction from us, thus we feel virtually compelled to adopt a knowledge-*for*-practice stance toward them as we introduce them into the profession, with the clear but implicit promise to bring them into full partnership later on. It could be that preservice training is so massive in scope, at least in comparison to the inservice settings in which we find ourselves working (we tend to hook up with small collectives of teachers, not the entire elementary force of a large district). That the discontinuity, both in our research and in our practice, exists should be of such concern to us that we are compelled to address it in a timely and energetic fashion.

It is also true that we have privileged, highly situated, decidedly local, and intensely personal models of teacher learning in this section on teaching teachers. It is our position that such models challenge us to think differently than traditional change and staff development models (Hoffman, 1998). We could have taken a more critical stance on these efforts, as have some of our colleagues in professional development (e.g., Hargreaves & Fullan, 1992), and cited their idiosyncratic, "self-indulgent, slow, time-consuming, costly, and unpredictable" (pp. 12-13) character. Indeed, many leading scholars (e.g., Fullan, 1993; Lieberman, 1996; Little, 1981, 1992; Nelson & Hammerman, 1996) insist that the school is the appropriate unit of teacher learning, that teacher learning *is* school learning. Even so, we are equally as suspicious of the bureaucratization of learning that can occur when individual needs and interests are overlooked in favor of the common good. Both Little (1992) and Richardson and Placier (in press) provide a way of coping with the individual-collective dilemma. What we need, according to Richardson and Placier, is some "sense of autonomy and responsibility that goes beyond the individual classroom...to the school and community levels" (p. 62). Little's (1992) solution to the tension between individual liberty and civic responsibility is to find joint work that provides an occasion for teachers to leave their autonomy in the classroom in the service of schoolwide issues and goals.

We would also comment on the range of research methodologies represented in the examples we have selected. Classical, experimental designs are absent, but they are not limited to qualitative/interpretive studies. In every case the studies have involved highly interactive models of inquiry that position the researchers in close contact, if not identification, with the participants. Many of the studies involved quantitative measures and a statistical analysis of outcomes, but always along with rich descriptions of contexts and cases. Mixed methods tend to dominate. It is our view that the adoption of a wide range of research methodologies, both within and across studies, offers greater opportunity to fathom the complexities of learning to teach and the effects of various forms of support on both teacher and student learning.

We said in the beginning of this section that we did not know how to teach teachers. We hope, however, that we have convinced you that we have many promising models to emulate and study with greater care and preci-

sion. The truth is that serious attempts to teach teachers, to engage them in educative practice and inquiry rather than provide them with a set of bureaucratically endorsed recipes, is a relatively new phenomenon. It has been around in concept for a long time (Dewey, 1904), but it has been a serious matter of scholarship and enactment for only a few decades at most. It needs our nurture and our scrutiny.

What will it be—training or teaching teachers of reading?

The training perspective is rooted in a technological perspective for teaching (Feiman-Nemser, 1990). As long as the outcomes can be specified and the context controlled, training serves our needs. But the reality of teaching is one of constantly changing conditions with fairly abstract and even ambiguous learning outcomes. It should be obvious from our presentation up to this point that we endorse a teaching teachers perspective on reading teacher education. This is not, to be clear, a teaching vs. training of teachers dichotomy; rather, we support a nesting of training within a broader construct of teaching. We know that training will be an important part of what we do in our teacher preparation programs, especially for those aspects of teaching that are more skill-like in their conception, but there are many other important aspects of teaching that can only be nurtured through the kinds of reflective, discursive, and dialogical strategies and experiences described in the previous section.

We pose the "What will it be . . ?" question in recognition of the fact that there are tremendous pressures surrounding teacher education that favor a training model and that these forces can, if not acknowledged and addressed, push the teaching of teachers into the background of preparation programs. The pressure to adopt a training model comes from a number of different directions and a number of different considerations. It is tempting to adopt a training preference for the following reasons:

- We know how to train. We have evidence that training works on teachers and translates directly into student learning. We have some evidence that a teaching model may be more powerful in the long run, but the empirical data are not entirely compelling at this point in time.
- We can train efficiently and cheaply. This is a time and resource allocation issue. We can calculate, target, and budget the cost of training in relation to our needs and goals. The investment required in teaching teachers is much more substantial.
- We can communicate clearly with the public regarding what we do and why we do it in a training model. Teaching teachers is, like teaching itself, filled with ambiguity and uncertainty. To the outsider, this ambiguity can translate into confusion or inefficiency.
- Training in teacher preparation makes few assumptions about the learner's motivations, background knowledge, prior beliefs, or current levels of expertise. Teaching is designed to build on the known.
- Training creates conformity in practice. Teaching teachers is more likely to lead to diversity in practice at a surface level of examination.
- Teacher shortages and teacher turnover require an increasing supply. A training model can supply more teachers faster. Teaching teachers takes time, must be continuous, and costs more.
- Supervisors and those who must evaluate don't need much expertise beyond an understanding of the features of the training model itself. Teachers of teachers must understand the processes of teacher learning and the contexts and strategies that promote growth.

The pressures toward a training model for teacher preparation are not derived solely from practical arguments. There are those who would argue at a conceptual level that training can become the path to more complex levels of thinking in teaching. According to Showers, Joyce, and Bennett (1987),

> The purpose of providing training in any practice is not simply to generate the external visible teaching moves that bring that practice to bear in the instruction setting but to generate the conditions that enable the practice to be selected and used appropriately and integratively...a major, perhaps the major, dimension of teaching skill is cognitive in nature. (pp. 85-86)

Cruickshank (1987) has designed and studied a teacher education model to promote reflective teaching. According to his view, training in reflective teaching is a consistent and powerful strategy for teacher preparation.

We are cautious in accepting this representation of teaching and training. While we are comfortable with the notion that some level of technical training can scaffold a developing teacher to higher levels of thinking, we are skeptical regarding the broad application of training principles to all of teacher education. Training as a strategy, nested in a larger construct of teaching and learning to teach as reflective practice (Schon, 1983, 1987), is a more powerful and compelling vision for a future in which teachers are more likely to encounter change, not routine.

The debate over the direction we follow will involve a substantial commitment of resources and therefore be a highly political struggle. In the absence of any compelling data that would document the value added from a broader perspective than just training teachers, we are left with a course chartered for the next millennium.

The responsibility within the reading research community is clear: Plan for a program of research that informs the practice of teacher education but also informs the public regarding the benefits of such a deliberative, reflective approach.

What should our research agenda for reading teacher education look like?

We have projected that the next millennium promises increasing challenges to the teaching of reading. We have argued that an increased focus on research in reading teacher education offers our best opportunity to meet these challenges. Our goal in this section will be to speak directly to the reading teacher education community regarding an agenda for future research that is considerate of our history and the conditions and the challenges we currently face. Our goal is not to prescribe specific studies but to share some thoughts about how we might better adjust the contexts, set goals, and establish priorities for our work. The following is our list of actions we need to take, both collectively, as a profession, and individually, in our roles as scholars and teacher educators within our institutional settings:

1. *Take a leadership role in building a research agenda for teacher preparation in reading.* The paucity of research in the area of reading teacher education is disturbing given the large numbers of reading researchers who spend a good portion of their daily lives immersed in teacher preparation. It is becoming increasingly clear that if reading teacher educators don't take initiative and responsibility for setting a research agenda, someone else will.
2. *Create critical spaces for dialogue, deliberation, discussion, and debates regarding reading teacher education research.* This is not a call for a new organization as much as it is a challenge for those in the reading teacher education community to become more visible and more active in research within existing structures such as the International Reading Association, National Council of Teachers of English, National Reading Conference, American Education Research Association, and American Association of Colleges for Teacher Education.
3. *Get started on a database for reading teacher education.* As a profession, we reading educators know too little about the range of programs operating nationally and around the world—their characteristics, course work patterns, course content, instruction, internship experiences, and enrollments in reading education courses. Without accurate, up-to-date information about the nature and impact of our programs, we have difficulty countering high-profile claims made by individuals pushing a particular policy agenda. With these data, we can begin to establish the benchmarks for our reform efforts.
4. *Develop better tools to assess the impact of teacher education.* We have made great progress in expanding the repertoire of measures available to examine reading acquisition, and we can credit much of that progress to better conceptual frameworks for understanding the acquisition process. We need similar development in reading teacher education—both better conceptual frameworks and better measures. Surely our search for better measures will include indices of student learning, but it will also include indicators for the knowledge, skills, and dispositions teachers need to promote student learning. And our search for better frameworks must include an account of how teacher learning improves student learning.
5. *Encourage rapprochement between the traditions of teacher training and teacher education.* Instead of using the other tradition as a scapegoat useful only for establishing the worth of one's own perspective, we should be asking what each tradition has to contribute to research on teacher learning and what we can learn about our own work from the work of others. It would be even more compelling if we were to document empirically the ways in which training and teaching can complement one another.
6. *Listen carefully and respond to the concerns of the public and policy makers.* As scholars of reading education, we certainly need to take the lead in setting our own research agenda, but ours is not the only voice in this conversation. The public wants better schools, and they see teacher education as an important lever for school improvement. Any hesitancy on our part in studying this critical linkage will (and should) be viewed with suspicion by a public uncertain about our capacity to contribute solutions to our educational problems.
7. *Make electronic texts a viable part of our curriculum and pedagogy in reading teacher education.* We cannot expect in our elementary classrooms what we fail to use in our own work. Research on how reading teacher education can be enhanced through the use of electronic media and texts must accompany our program development efforts.
8. *Place issues of diversity at the top of our priority list for research.* We put this at the end of our list because it may be the most challenging issue we face, but it is also the most important. It is simply unacceptable that a vastly disproportionate number of minority students fail to learn to read. It is unacceptable that we have so few teachers of color in our schools. It is even more unacceptable that so many majority teachers possess so little knowledge about cultural and linguistic diversity. We may not be the sole source of the problem, but we can and must become part of the solution.

Epilogue

What should your granddaughter's teacher know about teaching reading that your grandmother's teacher

didn't? Your grandmother's teacher was prepared to teach in a classroom very much like the one she attended as a student. The plan for preparation was quite straightforward. Your granddaughter's teacher will teach in a classroom quite different from the one she or he attended. There are few assumptions about that classroom of the future that we can use to extract a training model. We subscribe to van Manen's standard that "to be fit for teaching is to be able to handle change" (1996, p. 29). Change, and rapid change, will characterize the next millennium. Whether the conduit for these changes will be research or politics is up to us. To become the conduit for change it may be necessary for the research community to abandon some of the research traditions that have served our scholarship in the past (e.g., criticizing practice, chronicling change) and become active participants in change. Van Manen's standard applies not only to classroom teachers but to teacher educators and researchers of teaching as well. The dispassionate, distant, objective scientist metaphor for studying teaching and teacher education has taken us about as far as it can in understanding the complexities of teaching and learning to teach. The research community must become participants in the change if we are to influence the outcomes.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Mentoring and reporting research: A concern for aesthetics

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The purpose of this article is to experiment with alternative forms for reporting research on mentoring in literacy teacher education. The article will unfold in three parts. Each part constitutes a panel, as in a triptych, a presentational art form illustrated graphically in Figure 1, figuratively in Figure 2, and operationally in the article as a whole. The first panel is a report, written in the conventional manner, of an international mail survey on graduate student mentoring in literacy teacher education.

The second panel is a summary report of six follow-up site visits to the survey, one of which is textually staged in a narrative form that allows us to model the efficacy of taking aesthetics into account when writing up qualitative data. Here, we use *aesthetics* to refer generally to "the branch of philosophy dealing with art, its creative sources, its forms, and its effects" (*Webster's New World Dictionary of American English*, 1991, p. 22), and in particular, to several fictive techniques for representing our data.

The third panel consists of our reflections on the modeling process that we used to blur the lines between art and social science in reporting our research on mentoring in literacy teacher education; it also includes a discussion of what we gained (and risked) in the process of experimenting with fictive techniques in reporting that research, and our reasons for believing that such experimentation will become increasingly more prevalent in the 21st century. Hinges hold the panels together by serving as transitions from one section of the report to the next. These hinges also convey our commentary on the need to find more readable and aesthetically pleasing ways to report research in the new millennium.

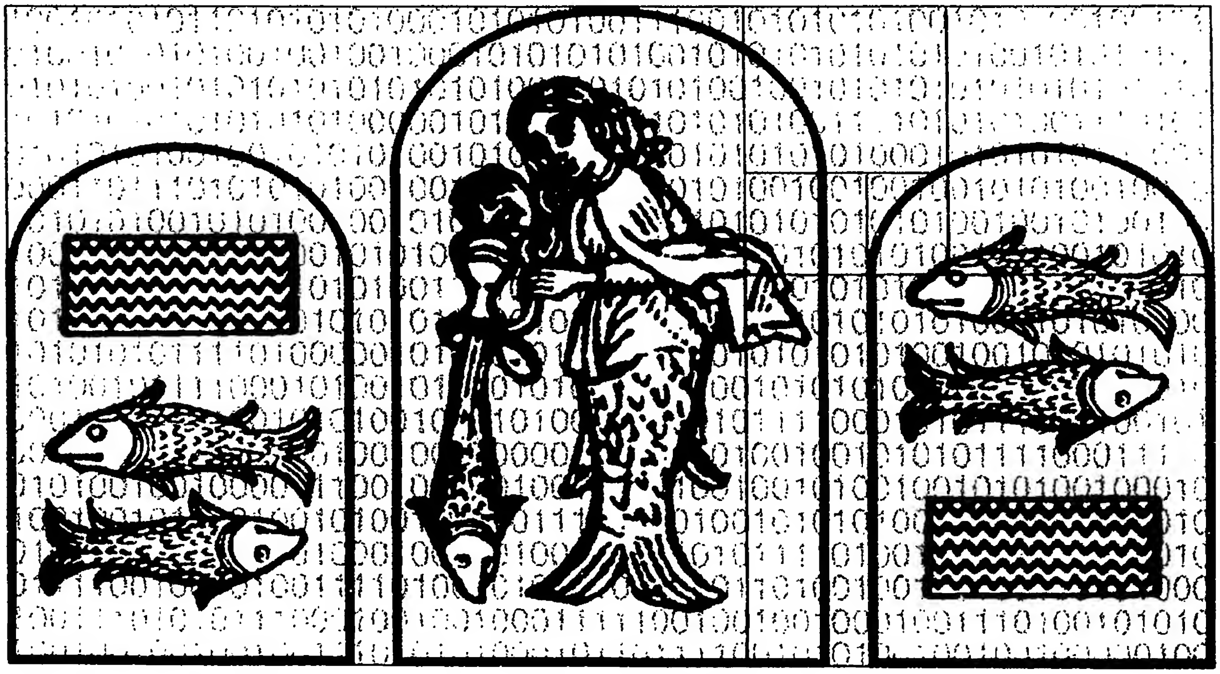
We begin the article by situating graduate-level mentoring, as it now exists, in the context of literacy teacher education. Following this brief introduction, we move into our tripartite description that includes the mentoring mail survey, the six follow-up site visits, and our reflections on the need for attending to aesthetics when reporting research on mentoring in the future.

Mentoring in literacy teacher education: An introduction

Although a large body of research exists on mentoring in general, that which pertains to mentoring in the academy is quite modest by comparison (Luna & Cullen, 1995; Merriam, 1983; Mullen, Cox, Boettcher, & Adoue, 1997). Moreover, a review of the literature on academic mentoring suggests that knowledge about literacy teacher educators' perceptions of what constitutes successful mentoring relationships between faculty and graduate students is virtually uncharted territory (Alvermann & Hruby, 1998).

Of the studies that do exist in literacy teacher education, Stansell's (1997) autobiographical account of his journey from graduate student to professor is fairly representative, as is Young and Alvermann's (1997) account of

Figure 1 A triptych with three panels



the more situation-specific mentoring relationships that develop around writing a dissertation. While these and similar reports (Belcher, 1994; Kemp, 1997; Wiseman, 1997) have begun to provide some of the substance and detail necessary for understanding how mentoring occurs within literacy teacher education, they do not go far enough. For as Mullen and Cox (1997) have noted, and we agree, "little research has been undertaken on how mentoring relationships develop, endure, die, or change over time" (p. xxi). We know little about the special ties that evolve over time between mentors and those who are mentored.

Some academics view mentoring as a developmental process (Luna & Cullen, 1995); others view it as a gendered (Heinrich, 1995), raced (hooks, 1990), or classed (Tokarczyk & Fay, 1997) practice; while still others see it as a liberating and empowering pedagogy (Freire, 1997; Macedo, 1997). Regardless of the stance taken, a common goal of most graduate-level mentoring programs is to help advisees achieve a sufficiently high level of autonomy in their professional lives (Blankemeyer & Weber, 1996).

However, we personally are persuaded by Kegan's (1982) view that adulthood is characterized less by autonomy and more by interdependence. Thus, in designing our survey of mentoring relationships in literacy teacher education, we drew from Kegan; specifically, we asked questions that would allow us to tap the interdependent nature of such relationships. For instance, we asked respondents to recall their own experiences as graduate student advisees in terms of how those experiences had influenced their current relationships with graduate advisees, how long they had been in the profession, what kind (if any) contact they maintained with their former mentors, what they perceived their own advisees would say about their mentoring style, and so on.

Panel 1: The mail survey of mentoring in literacy teacher education

The purpose of the survey was to identify literacy teacher education mentors' perceptions of what characterizes a successful mentor-mentee relationship. We defined mentors as dissertation or thesis advisors (referred to in some institutions as major professors) and mentees as the doctoral- or master's-level students these advisors serve. We (a female major professor/male doctoral student dyad) are an example of this type of mentoring relationship. As coauthors of the survey, we brought different concerns to its development. These concerns were reflected in the type and content of the survey questions.

Figure 2 Le Triptych d'Vie (an explanation)

Le Triptych d'Vie
(The Triptych of Life; The Triptych of Water; The Aquarian Triptych)

Description: A literary-literacy artifact from the early 21st century depicting the turn of the new millennium with a mythic astrological motif. Specifically depicts the passing of the Age of Pisces (represented by a fish—sometimes two—a lower vertebrate life form, unconsciously aswim through the waters of life), and the ascension of the Age of Aquarius (represented by a human being, a higher vertebrate life form, hoisting an urn to the shoulder, often depicted with the urn tilted to allow the waters of life to pour forth).

The left panel: Aquarius vainly attempts to account for all the fish in the sea.

The center panel: Upper section: Aquarius convinces the fisher folk to throw down their nets.

Middle section: The fisher folk wade in, partake of the water, and are transformed.

Lower section: Relief and rejoicing among the fishes.

The right panel: Aquarius triumphant, cloaked in Van Heusen, stepping forth from the waters, urn in hand, forever replenishing.

Roundel—Translated: "In the particular resides the general" (Lawrence-Lightfoot & Davis, 1997, p. 14).

Interpretation: Strict interpretations have taken the motif as a metaphor for the breakthrough achievements of the life sciences during the 21st century, but more comprehensive assessments extend the metaphor to include the advances in the social and information sciences, as well as in the humanities. Still others interpret the motif broadly as representing the development of literacy and the flowing of the life-giving wisdom it provides.

Design and methods

The survey design, data collection, and analysis followed standard, recommended procedures for mail surveys (Fowler, 1993; Mangione, 1995). These procedures were directed and coordinated by professionals in the Survey Research Center (SRC) at the University of Georgia. The SRC staff also provided advice about constructing and formatting the 41 closed-item survey, which comprised multiple-choice questions and 4-point rating scales. Three of the items offered respondents an opportunity to explain the category "other." Space was also allocated at the end of the survey for additional comments. The 41 items were derived from a review of the literature on mentoring and from focus group interviews that George Hruby conducted at the National Reading Conference. After piloting the survey to determine the clarity of its directions and questions, we revised it in accordance with the suggested changes.

We used a simple random sampling procedure (Fowler, 1993) in drawing from a population of literacy teacher educators listed in the latest edition of the International Reading Association's (1995) *Graduate Programs and Faculty in Reading*. Addresses in this list were updated using membership information from three other professional reading organizations (National Reading Conference, College Reading Association, and American Reading Forum). From a final list of 2,200 reading teacher educators, 500 were randomly selected to receive the survey. Using a two-wave mailing, we received 249 usable surveys (excluding those received after the cut-off date), which produced a response rate of 49.8%—an acceptable value for mail surveys according to Kalton (1983) and Mangione (1995). The sampling margin of error was calculated as being no greater than +/-6.0%, a value that permits generalizing from the sample to the population (Fowler, 1993). However, when interpreting the results of this survey, it is important to bear in mind the limitations of self-report data.

Analysis and results

Frequencies for the 41-item survey were run on 249 cases using the program MVS SAS Release 6.08. Independent sample chi-square tests were performed for the purpose of investigating differences in responses based on the following variables: the mentor's sex category, length of time spent mentoring at the graduate level, type of advisee (master's or doctoral level) that the mentor had in mind when responding to the survey, and type of relationship (ongoing or not) that the mentor had with her or his own mentor.

Profiles of respondents. Given the subject pool that the respondents represented, there were few surprises. A little less than half the respondents (45%) had 15 or more years' experience mentoring graduate students; 40.5% had between 5 and 15 years' experience; and 14.5% had less than 5 years' experience. There was no statistically significant difference in survey return rates between females (56.6%) and males (42.6%). When asked if they responded to the survey questions with mainly doctoral- or master's-level students in mind, 46.6% of the respondents said doctoral, 30.9% said master's, and 20.5% said both (5 missing cases). Over half (54.2%) said they answered the questions with both male and female graduate students in mind; 44.2% said female only, and 0.4% said male only (3 missing cases). Over half (57.0%) of the respondents said that they had maintained routine, ongoing relationships with their mentors from their own doctoral programs.

Nature of mentoring relationships. The analysis of the frequency data showed that 41.7% of the respondents claimed to model their mentoring "somewhat closely" on the relationship they had with their own mentor, and 40.4% said they modeled it "very closely"; 11.6% said they "did not model it very closely"; and 3.4% said they "did not model it at all" on what they had experienced as advisees (4 missing cases). Of the respondents, 43.2% claimed that their mentor was the most important source of their mentoring knowledge, as compared with others who named the primary source to be what they knew about human re-

lations in general (39.7%), a professor other than their mentor (8.9%), the professional literature (1.4%), or another graduate student (0.6%) (9 missing cases).

As a group, the respondents looked positively upon themselves as mentors and on the supportive role they played in relating to their advisees. For example, when asked to choose a metaphor that would best describe how they perceived themselves as mentors, 38.6% chose "role model" as the preferred descriptor; another 37.3% chose "coach." Other less frequently chosen metaphors included "consultant" (6.8%), "director" (6.0%), "sculptor" (5.6%), "critic" (2.4%), and "benevolent slave driver" (1.6%) (4 missing cases). In response to how they supported their advisees, 54.2% of respondents said "by showing confidence in them," 30.1% "by being accessible to them," 6.8% "by being a good listener," and 6.4% "by affirming their advisees' self-worth" (6 missing cases).

The respondents were equally positive in their perceptions of how their advisees would describe them as mentors. Over 70% of the respondents agreed that the following traits would be seen as "very true" about themselves: that they were demanding of themselves (82.3%), that they were supportive and affirming (77.5%), and that they were honest and frank (73.9%). Finally, the respondents believed similar attributes were necessary in their advisees if a mentoring relationship were to succeed. For example, the respondents were in agreement over 70% of the time that the following were "very true" about successful advisees: they were committed and willing to work hard (90.4%), they were able to take constructive criticism (83.1%), they were resilient (72.7%), and they were open and willing to lay things on the table (71.9%).

Perceived differences according to sex category. A statistically significantly greater number of female mentors than male mentors ($X^2_{(1)}=11.65$, $p<.001$) perceived that their advisees would say it was "very true" that they were demanding of themselves. Similarly, female mentors ($X^2_{(1)}=4.34$, $p<.05$), statistically significantly more so than male mentors, perceived that their advisees would say it was "very true" that they were demanding of others (especially students). At the same time, statistically significantly more female than male mentors perceived that their advisees would say it was "very true" that they were supportive/affirming ($X^2_{(1)}=5.93$, $p<.05$) and positive/optimistic ($X^2_{(1)}=7.17$, $p<.05$) in their relationships with students. In terms of working with their advisees to help them improve their writing, female mentors, statistically significantly more so than male mentors ($X^2_{(1)}=9.59$, $p<.005$), perceived that students would say this was "very true" of them. Finally, a statistically significantly greater number of female mentors than male mentors ($X^2_{(1)}=13.12$, $p<.001$) perceived that their advisees would say it was "very true" that they were role models for the students.

Perceived differences according to advisee type. Mentors who reported answering the survey with only doctoral students in mind, statistically significantly more so than those answering with master's and a mix of master's and doctoral students in mind ($X^2_{(1)}=4.30$, $p<.05$), perceived that their advisees would say it was "very true" that they were role models for the students. When mentors answered with only master's-level advisees in mind (as opposed to doctoral and a mix of master's and doctoral students), they were statistically significantly ($X^2_{(1)}=4.73$, $p<.05$) more apt to perceive it was "very true" that their advisees viewed them as working with students to improve their writing.

Perceived differences according to ongoing relationship with mentor. Mentors who had ongoing relationships with mentors from their own doctoral programs, statistically significantly more so than those without such relationships ($X^2_{(1)}=9.16$, $p<.01$), reported they believed it was "very important" that students whom they mentored be able to teach them something (keep them abreast of new developments in the field). Similarly, respondents who had on going relationships with their own mentors, statistically significantly more so than those who did not ($X^2_{(1)}=7.39$, $p<.025$), reported they perceived that students whom they mentored would say it was "very true" that they (the professors) were role models for the students. Finally, a statistically significantly greater number of male mentors than female mentors ($X^2_{(1)}=6.30$, $p<.025$) described ongoing relationships with their own mentors from their doctoral programs as excellent; females were less laudatory in their descriptions of those relationships.

Discussion of findings

What do these findings tell us that we did not know before? We know, first, that mentoring does indeed go on throughout the literacy teacher education profession. Although there is little research to support this finding in the existing literature, the idea that mentoring has continued across generations suggests we are dealing with a natural phenomenon, a propensity for a particular set of social behaviors, a regular pattern, what dynamical theorists would call an attractor state (Bar-Yam, 1997; Clark, 1997). We stress, however, that these regular structures are not due to any essential nature shared among literacy teacher educators, but rather to the inclination of human agents to transact and self-organize in these fashions, given the prevailing ecological constraints.

Second, we know that mentoring in literacy teacher education is perceived mostly as role modeling and coaching. According to an organizational theory of men-

toring advanced by Kram (1985) and applied to higher education (Luna & Cullen, 1995), role modeling serves a psychosocial function while coaching serves a career function. This distinction, as outlined by Luna and Cullen (1995), holds that "career functions permit the protégé to acquire new knowledge and to grow within the organizational structure...[whereas] psychosocial functions advance a growing trust and intimacy...by providing enhanced identity, continuing support, and the sharing of dilemmas" (p. 21). Theoretically, the beginning phases of mentoring are most closely aligned with career functions, and the later phases with psychosocial functions, although there is room for interchanges between the two. That we did not find the respondents in our study making a distinction between the two functions may have been due more to the way we posed the questions than to any flaw in the theory.

Third, we know that mentors draw their understanding of mentoring from their own experiences in being mentored, and that many literacy professionals have ongoing relationships with their own mentors, even as they mentor others. Researchers from fields outside teacher education have reported similar findings. For example, in two surveys of academics in business (Allen, Russell, & Maetzke, 1997) and management-related fields (Ragins & Cotton, 1993), it was found that satisfaction with previous mentoring experiences predicted a willingness to use those experiences as a basis for mentoring others in the future. In another survey of 400 scholars in the social, physical, and natural sciences, Grant and Ward (1992) found that professors who perceived they were mentored well became mentors earlier in their careers than did those who reported a less satisfactory experience.

Finally, we know that sex category, advisee type, and the nature of a mentor's relationship with his or her own mentor made a difference in the perceptions our respondents had of themselves. For example, we know that female mentors in literacy teacher education, more so than their male counterparts, perceived their advisees viewed them as demanding, yet supportive and optimistic. This finding is supported, at least partially, by McQuillen and Ivy (1985) who found that female graduate students who chose female mentors reported higher levels of stress associated with a demanding attitude than did women who chose male mentors. That female mentors in our study perceived their advisees viewed them as more demanding than male mentors might be interpreted to mean that the women sensed they project a certain assertiveness that others notice. Alternatively, it might be argued from an essentialist perspective (see Belenky, Clinchy, Goldberger, & Tarule, 1986) that the female mentors were more demanding of themselves and their female advisees because they intuitively knew what it takes to compete and succeed in a male-dominated academy. This latter interpretation (If you can't beat them, join them) ignores what Stalker (1994) has argued, and we agree, is the potential for women to resist and transform hierarchical structures that work to their disadvantage. It also ignores Brodkey's (1989) notion of discursive resistance, a term she uses to describe the feminist practice of giving agency to certain stereotypes (e.g., the assertive or demanding female) for the express purpose of gaining a foothold in a discourse that is least committed to preserving that stereotype.

Hinge

Although several findings from our survey of literacy teacher educators' perceptions of the mentoring process were supported in the larger literature on mentoring in the academy, we were limited in what interpretations we could draw from a data set devoid of any students' voices. To compensate at least partially for this missing student perspective, we did six follow-up site visits in which we interviewed several graduate advisees and the professors with whom they worked. Below, we describe the follow-up study and then provide a summary of its findings across all six sites. We conclude with an example of how we narratively wrote over each other's interpretations of these findings in an effort to provide an aesthetically enriched picture of mentoring in literacy teacher education at the turn of the millennium.

We also use this narrative staging of the data as a means of experimenting with ways to blur the lines between art and social science. We believe that the use of aesthetic narrative forms in reporting research on mentoring in literacy teacher education creates openings through which partial understandings between the researchers and the researched can be glimpsed. In this kind of report writing, "the arguments are implicit; the words at the surface are meant only to trigger memories, images, common experiences, viewpoints left for dead" (Yukman, 1997, p. 169). Absent from the aesthetic narrative are the linear and smoothed out themes that currently mark a piece as qualitative or naturalistic in form.

As other forms of more readable and aesthetically pleasing ways to report research continue to emerge in the 21st century, we believe they will enhance but not supplant the conventional grids of scholarly writing now in place. And this is as it should be, no doubt. It is enough if these new forms successfully fragment what Lather (1991) has called the "univocal authority" (p. 21) of texts, that is, texts bent on supporting and proving rather than vivifying. Finally, we believe there will be room in the next millennium for writing up data in ways that construct and reconstruct meaning many times over—"multiple accounts [that] splinter the dogmatism of

a single tale" (Grumet, 1991, p. 72). It is toward this end that we experiment here.

Panel 2: The six site visits

We selected the six sites with the following criteria in mind: diversity in terms of mission, size (large land grant, Ivy League, small liberal arts university), and geographic location. Once these criteria were met, we invited professors in literacy teacher education (in the United States and Canada) to participate and to involve a small group of graduate students in the interviews. The following professors agreed to participate: Vivian Gadsden (University of Pennsylvania, Philadelphia), Judith Green and Carol Dixon (University of California at Santa Barbara), Jerome Harste (Indiana University, Bloomington), James Hoffman (University of Texas at Austin), Nancy Nelson Spivey (Louisiana State University, Baton Rouge), and Dennis Sumara (Simon Fraser University, Burnaby, British Columbia).

Thirty-one graduate students (27 women and 4 men) also agreed to participate but are not listed by name in accordance with the policies of the University of Georgia's Institutional Review Board on student participation. (The professors' names are used because each has appeared, or will appear in the near future, as copresenters with us on programs at various professional meetings.)

Face-to-face meetings with the six literacy professors and their graduate advisees provided opportunities to explore in greater depth what we had learned about the mentoring process from the mail survey. Specifically, we wondered what mentoring in literacy teacher education looked like in actual practice. Although the survey data indicated that most professors viewed themselves as role models or coaches when it came to mentoring master's- and doctoral-level students, we wondered how (or if) those descriptors would play out on the different campuses we planned to visit.

Interview methods

A series of individual and group interviews were conducted at each site over a period of several days. The individual interviews ranged in length from slightly over an hour to more than 3 hours. Each was fully transcribed. The group interviews, which included both the professor and students, lasted approximately an hour. Following Briggs (1986) and Nespor and Barber (1995), we consciously avoided a standard set of questions in pursuing what we hoped would be a more naturalistic approach to discovering how the professors and students defined the mentoring process, if indeed that is what they called it.

We began each interview by asking a broad question, such as "So, how would you describe what is going on here in terms of your relationship to ___________" (the graduate students' names if the professor was being interviewed; the professor's name if the students [either individually or in small groups] were being interviewed). Like Nespor and Barber, in phrasing our follow-up questions we tried to avoid forcing people to fit their experiences into any preconceived notions of the mentoring process. This approach to interviewing worked well, especially because the professors at two of the six sites rejected the term *mentoring* altogether.

Of the six group interviews, four were videotaped. We used the tapes and our field notes to construct viewing guides. These guides contextualized the content that each of us thought was relevant from the taped interviews. They also included questions that we posed to each other in terms of the larger data set (the mail survey and findings from the other site visits). For example, Hruby wrote the following in a guide that he prepared for Alvermann to use in viewing the tape made of a group interview at Indiana University:

> Alex (all graduate students' names have been changed) speaks of Harste's model of revision and reconsideration. Jessica says it's more than a model; it allows others entrée into the community. Keeping minds open; allowing multiple and evolving perspectives—Harste talks of these in his individual interview as well. This [discussion] leads easily into the theme of multiple mentoring—which we have encountered elsewhere—and is picked up by Kathryn. Did you [Alvermann] find this theme of community/peer/group mentoring at your sites?

We met to discuss our written responses to the viewing guides and to note where there were linkages between those responses and the survey data. The viewing guides, the questions on the guides, and our responses to them became another layer of data that we entered into the final analysis. We also sent copies of all transcripts to the people we interviewed and requested that they check them for accuracy and potentially sensitive material. In three instances the participants asked us to delete some sensitive wording from their particular transcripts, which we did.

Data analysis

Analyzing the data involved rereading all of the transcripts a number of times for different purposes. Initially, we made notes in the margins of the transcripts that provided a context for the actual interview. We also underlined or highlighted key ideas that provided some insight into how the participants perceived the mentoring process. Then, we met to discuss these insights. When we noted certain patterns in the interview data, we reread the survey findings to see if similar patterns exist-

ed there. If so, this was noted and taken into account in subsequent analyses.

We read the transcripts again as we prepared the viewing guides and then attempted to answer each other's questions about the group interview data. Next, we met to triangulate the data from the transcripts, our field notes, and the viewing guides. Following that, we wrote full-length narratives of each site visit. Alvermann used a conventional approach (Polkinghorne, 1988) to report the data in narrative form, while Hruby used a variety of fictive representational forms (Denzin, 1997). We exchanged narratives, read each other's interpretations, and then wrote another narrative (each according to her or his own style of writing) that took into account the original writer's interpretation of the data.

Writing over each other's interpretations in this manner generated some new insights that figured into the final step of our analytic process—a cross-site analysis. Looking across sites for common patterns yielded several findings, three of which are captured in the following summary. The site visit findings are condensed here in order to make room for an example of how we wrote over each other's interpretations of the interviews conducted at Simon Fraser University with Sumara and four of his graduate advisees.

Summary of the site visit findings

One thing we learned from the site visits, which was not visible in the survey findings, was that the term *mentor* evoked quite different meanings among the people we interviewed. For example, Green and Dixon disliked the term *mentor* because they viewed it as a synonym for authority. In interviews with Green, Dixon, and their advisees, it was clear that they saw authority as being socially constructed by the group—a concept somewhat at odds with the meaning of mentor, at least as it is typically used. Said to have originated in Greek mythology when Mentor, a trusted friend of the absent Odysseus, was left in charge of educating Odysseus's son (*American Heritage Dictionary of the English Language*, 1996), the term *mentor* is most often associated with one-on-one guidance. Like Green and Dixon, Hoffman also objected to the term as a descriptor for how he interacted with his advisees. Hoffman viewed mentoring as being concerned more with awakening a student's intellectual curiosity than with advising or counseling. In his words, "mentoring is not a self-descriptor but rather something students say about what is done for them."

Although the other four professors we interviewed did not express strong disagreement with the use of the term *mentor*, they were careful to point out the differences they saw in their definition of mentoring and how they perceived the term was generally used. For instance, Sumara stated that he saw himself more an interpreter than a mentor. Theoretically situating himself and his mentoring in an interpretive framework, Sumara believes that knowing how his advisees relate to their own work as teachers enables him to suggest readings and other practices that will move them along in their thinking. In similar fashion, Spivey took individual differences into account by urging her advisees to take credit for their own thinking and to claim ideas as their own. She emphasized that she did not want to duplicate herself—that is, she did not equate mentoring with cloning. Instead, she believed that each of her advisees should develop a strong sense of what makes him or her unique.

Harste also did not object to the term *mentoring*, but his description of how he interacted with his advisees (and their descriptions of how they related to him) suggested that it did not adequately capture what was happening. In fact, Harste made a point of expanding on the term; in his words, mentoring is "creating the conditions conducive to supporting the development of a community of learners." Perhaps an even more encompassing use of the term *mentoring* is one that Gadsden used. Based on her experiences at the University of Pennsylvania, Gadsden stated that mentoring, among other things, involved taking responsibility for finding ways to support graduate students financially as they struggled to pay for their education at an Ivy League institution.

A second pattern in the site visit data supported the survey finding that professors in literacy teacher education draw from their own experiences in being mentored to shape how they mentor (or as some prefer to say, interact with) their own advisees. In tracing these intergenerational links in mentoring experiences, we found that the professors we interviewed looked very similar in their attempts to reproduce or improve upon how they were mentored. For example, Gadsden, Spivey, and Sumara emphasized the importance of encouraging students to follow their own interests and to work across discourse communities as a way of acquiring new insights into those interests. Green and Dixon did the same; in addition, they looked for ways to mix academic interests with a certain degree of structured socializing between faculty and students. Although Sumara, Spivey, Harste, and Hoffman did not recall this type of socializing as being all that important to their own doctoral programs, or to how they currently interacted with their students, these four professors were similar to the others in their view that mentoring involves the personal (emotional) as well as the academic.

Finally, in our cross-case analysis of the site visit data, we found evidence that professors were generally concerned about creating safe spaces in which students can work and grow professionally. Students sensed that

concern and were generally in agreement that such spaces did indeed exist for them. At Indiana University, Harste and some of his colleagues worked to create what he called a "thought collective" in which a cycle of reflecting, observing, and theorizing opened up possibilities for taking a stand and being "connected to others who thought like you," or who were concerned with the same issues but approached them differently. The importance of being anchored in one's thinking was Harste's response to the currently popular notion of scholarly eclecticism in reading research. In his words, "eclecticism is a disease curable by taking a position." He was clear that there was no one "right way" of being anchored; in fact, if there was one thing he worried about, it was the fear of developing like-mindedness in a thought collective. He worked hard to keep this from happening by creating spaces in which reflection, observation, and theory building occurred in ever-widening thought collectives (both within and outside the United States), thereby allowing members to rethink their positions and thus outgrow themselves.

The four students we interviewed at Indiana University told numerous anecdotes that included examples of how this continuous growth process actually worked. For example, Kathryn saw the thought collective as a way of breaking down traditional hierarchies in higher education—a process that helped her grow from being a student to a colleague. Abe saw it as a mechanism for keeping the dialogue open in groups of people whose views were often diametrically opposed on issues of common concern, and Carrie attributed the success of the thought collective to the fact that it allowed everyone to have "great debates."

At the Santa Barbara site, Dixon and Green spoke about an amorphous social collective that they and the students affectionately referred to as "the Blob," named after a movie, and more formally known as the Santa Barbara Classroom Discourse Group. This collective, which was viewed as a support community by the graduate students who elected to be part of it, was considered a safe space for negotiating group roles and relationships. Operating within its structure, Lisa, for instance, came to see mentoring as a two-way process, not something that the professor simply does for the student. A sense of reciprocal caring was also evident in Nadia's impression that the Blob students generated a great deal of support for one another.

At Simon Fraser University, Sumara created safe spaces in which his advisees could work and grow professionally through a set of practices that encouraged them to interpret the relationship between their academic studies and their remembered experiences as readers and teachers. Through extensive literary exploration and transformative writing activities, the students entered into what Sumara called "commonplace locations for interpretation." These commonplace locations were the sites where shared reading and responding to literary texts, theoretical texts, and various forms of interpretive response texts became the archival materials from which they drew in critiquing their academic work. According to Danielle, one of Sumara's advisees, these commonplace locations afforded her an opportunity "to see how their theories, their research, the personal aspects of themselves were all coming together...[to produce what she called] a very readable sort of writing."

The safe spaces that Gadsden, Hoffman, and Spivey created for their advisees differed from those just described. Unlike their peers at other institutions who were members of thought collectives, the Blob, and commonplace locations for interpretive writing, the students who worked with Gadsden, Hoffman, and Spivey were involved in more traditional mentoring practices. Although they belonged to a larger community of graduate students in their respective institutions, they typically looked to one professor for advice and assurance. The nature of this advice often had a nurturing quality about it, not unlike that involved in some parenting relationships. For instance, Tina, a doctoral student at Louisiana State University, described Spivey as "a mentor [who] has always been there for me." And Ellen, who worked with Hoffman at the University of Texas at Austin, entered doctoral studies with the expectation that she would be mentored in a manner similar to how her father, a professor, had mentored his students.

There was also an element of the parenting metaphor present in Wendy and John's descriptions of how Gadsden was always there for them. They especially appreciated her willingness to let them make their own decisions about graduate offerings at Penn and to give them a second chance when those decisions backfired. In sum, regardless of the nature of the safety provided, mentoring that entailed a certain degree of nurturing fulfilled a need seemingly present in both the professors and the students.

Hruby's fictive representation

The following is an example of the sort of fictive representation with which Alvermann requested Hruby to experiment. Fictive representations, as we have come to understand them, are research reports that preserve the integrity of the data while employing the tropes and techniques of fiction in the write-up for the benefit and pleasure of the reader. (We explain this technique and its justification at greater length in the last section of the article.) The reader should understand up front that such writing does not adhere to American Psychological

Association editorial standards. The narrative is broken at points by centered dots to signify semantic transitions larger than a paragraph but unheaded. Quotes are sometimes captured in quotation marks when brief, indented when longer, or else set in italics when set off as a separate section altogether. In this fashion, italicized text segments can underscore the use of interpolation and parallel structure. The following is abridged from a longer text, and the flow of the plot line and the tension constructed thereby is therefore lost, but the general tone and method of the technique should be sufficiently illustrated for our purposes.

The uncommon commonplace book

Before you lies open a scrapbook of sorts, a repository for jottings, clippings, notes, quotes, postcards, and snapshots from a recent trip to a west coast university. Here, for instance, you see from the airplane the cozy if cluttered peninsula above which the school is nestled, and the ship-dotted bay sparkling in the sunlight of a spring afternoon. (An optimal shot thanks to the pilot's right-banking, stomach-churning turn in preparation for landing.) Here, too, you see the varied contents of a manila folder: a boarding pass stub with baggage claim sticker; the itinerary of interviews proposed by my host; faxed reservation information and directions to the guest house at which I will stay; even scribbled notes from a preparatory perusing of some of the host's writings, and notations from a strategy session with Donna, my own mentor, for whom I research. And then there is, of course, the heart of the matter: two interview guides, one for the graduate students and one for their mentor. And here—take a look—the result of the excursion: five hefty transcripts of the tape recordings transcribed by a legal secretary in best legal form. Note the ellipses, like loopholes, stitching the narrative together. And inside this slender glove box: a videotape of the whole-group interview shot in the university's video studio. Pocket-crumpled pieces of folded notepaper covered in scrawl. A bev-nap or two. A pair of business cards. And then my journal proper, pages lined with the velour of random musings.

Taken singularly such items are suggestive, each piece inciting its own degree of attention, some sufficient to seduce the mind toward epiphany. But it is how they can be taken together to suggest a whole greater than the parts that engages me most. And, indeed, a major theme that will emerge from this site visit is the way in which disjuncted items reconceptualized through intentional or random juxtaposition reveal an interpretive order whose source itself lies open to interpretation. I here share it with you through this, my site visit write-up, my attempt at what my host Dennis Sumara will call a "commonplace book."

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"I would say I'm an interpreter, you know? That's what I do. And I don't think that I mentor them... I think that my own research and my own teaching I would call an interpretive practice. That's what I always tell my students. That's what I try and tell them about teacher education, like when you're working in a classroom, your job is to be an interpreter with them, not for them. And that's how I understand my role. Now, see, I told you I'd learn something by doing this because I'd never really thought about it."

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I awake the next morning to sunshine, gull-cry, and the bracing sea-damp flowing in off the Pacific's southerly currents. I inhale intimations of cedar and fir and fishing boats. For a fragrant moment the stresses of my doctoral program drop away, and I am transported beyond my recalcitrant sense of fraudulence as a budding academic. How could I ever have descended to such doubt, I wonder.

Lydia, morning-like, arrives early to take me to breakfast. She is one of Dennis Sumara's graduate students. We chat, and eventually strike out for a local grill. Over pancakes and coffee she explains her classroom experiences with Dennis. I listen as intently as I can, but I am slow to envision what she's talking about.

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"I started to keep this...I really wouldn't call it a research journal, just kind of a thinking journal where I would sit down and just type things that I was worried about or thinking about. And by the time I got to about page one hundred of single-spaced typing and started to read through it, it became quite clear that I was most interested in those rather perplexing transformative moments that occur in classrooms when all of a sudden you're in the middle of talking about a work of literature and you realize that no one's the same for having had that conversation, and never will be again. Even if it's not articulated, you know?... [I started] trying to study those invisible relationships between things, you know? Between readers and texts. But more particularly in school among people who read together. I thought, okay, that's it. That's the moment. That's what I'm interested in."

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Now here, you see, I've included some snaps of the four female graduate students I interviewed. Here is Danielle, the first interview. Dark, middle-aged, strong-accented mother of an adolescent, sitting in her spare, but orderly, living room. Muted colors, muted shadows, a damp lavender light through sheer drapes descending. Coffee table with requisite coffee table book of art prints. Very neat; no sign of a male presence. She tells me about the recent personal loss that forced her to drop out of the

general curriculum and take independent studies instead. And of how then Dennis invited her to join his graduate group doing reading and writing interpretations.

> [T]hey went around the table just sharing their writing and I remember being completely awed by the whole process because I was impressed at the level of writing of where people had gone. It was so meaningful. It wasn't just dribbles, it was, like, very connected. And I also saw the personal coming through it in a much bigger way than I'd seen it in anybody's writing within those courses to that point. At least if there was, nobody had been willing to share it, you know? But in this case they did. And then I could see how their theories, their research, the personal aspects of themselves were all coming together...I knew this was the kind of writing I wanted to get into myself, you know? And then I was moved by the rapport between everyone in that group and the support that everybody offered to each other. I knew that it came from the kind of tone that Dennis is setting in the classroom for them and also making himself vulnerable in the process, I think.

Here's a shot of another grad student, Lois, in her office at the suburban school where she works as a consultant. Late 20s, looks younger, glowing peach-like complexion, from a rural Mennonite community. Energetic. Earnest. With a child she is struggling to understand. And struggling herself as she matures away from the too narrow space her parents and community would allow her.

> To me a mentor is someone who can look at your skills and your interests and your abilities and draw from you whatever they feel are your strengths and give you scaffolding to move into some areas where those become useful to other people as well as to yourself so you can develop them. Because I think very often...we're hesitant to even say that we are writers or we are teachers or we are whatever. We're shy about being who we are becoming in a sense. So a mentor kind of makes a location for people to be the best that they can be, I think. The best writer you can be and the best teacher you can be.

Here's Sandra. Late 30s, maybe. Lanky and angular, mouth pursed. Dark colors, dark denim. Reposed in her elementary school media center. The overt intellectual of the group, it seems, and deep voiced. Difficult, I find, to approach. Disapproving on principle. She is silent in this shot. But later in her car with Dennis, as I eavesdrop from the back seat, she discusses with him their community work with a gay and lesbian studies group, and I am impressed with what strikes me as an example of peer mentoring between them.

Oh, and of course, Lydia. My tour guide about town. At the helm of some kind of circus car. My knees tucked up under my chin. Gentler, less severe than the others. But more articulate and descriptive. A better sense of timing, I think. And of fun. Smiles readily. Sensitive to the telling detail. Here we are at a fast food restaurant where she's introducing me to a local specialty: some kind of gravy-drowed, melted cheese-like carbohydrate item—*poutine*, they call it—the kind of thing you might find delicious if you were a very stoned college senior. Lydia is older than that, but she finds it a funny detail to share, and she's right. I appreciate the gesture, if not the cuisine.

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"It needs to begin with something that's difficult for you. But then it must become something much bigger and become situated and resituated in bigger questions."

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When the evening arrives, I've gotten three graduate student interviews on microcassette. I try to regather my energy, my notes. Dennis has rescheduled our interview for a few hours later than originally planned, sensing my scatter. But the extra time doesn't do me much good. I nap fitfully, and then pace around the room. When I finally call down to invite him up, the expectation, the pensivity is high. The exaggerated shadows from the receded ceiling spots are foreboding. The growing downtown night-bustle echoing up from the street portends challenge.

Dennis enters the room, smiling. His presence is intense. He is in the prime of his life, clear-eyed, carefully attendant to detail. He speaks with energy and conviction, rapidly, and as he speaks I find myself engaged. I'm not yet sure what to make of him. But I'm doing my best to track the line of his narrative.

Dennis begins by talking about the influences that mediated his development as a scholar of education while in graduate school. He cites the work of Palmer, Rosenblatt, Iser, and Gadamer; of Britzman and Lather; Grumet and Pinar. He explains how this was the foundation upon which he developed classroom-based writing inquiry practices. He tells of how he requires his students to write "short and very specific phenomenologically oriented narratives of educational experience." Noting that his students as a result of such requests almost always write about life experiences rather than school-oriented ones, he explains how this provides an entry for reading and writing toward what is truly important for them. To request that they write what is important immediately is fruitless because they do not yet know what that is. According to Dennis, they have not done the necessary interpretive groundwork. To get to that knowledge they must read and interpret, and to that end he requires very specific response practices to the readings.

Sometimes this requires unconventional teaching strategies, like the time he asked his students to bring in one old shoe. All the shoes were placed anonymously in a pile in the corner, he explains, and then they wrote about that. "And if you can believe it, we ended up in

some very interesting theoretical places doing that. But people don't find it intimidating. So [the point is], I never go in and say write about what's important to you, and I never tell them what to write. But I always make sure we have a set of structures that are very prescriptive to write in." Without the scaffolding of what he calls *liberating constraints*, Dennis maintains, students are at a loss for signification. Such a regimen of prescriptive writing practices works both for undergraduates as well as graduates, Dennis tells me.

"I use it a lot with undergraduate teacher education students because they're in a process more than most of us...of identity transformation.... So I'm a firm believer that there needs to be intervention and structure. And the only phrase that I've come up with that I find useful in thinking about this rather ambiguous idea is 'liberating constraints.' Because I think that there are some constraints that just constrain people and don't permit them to be creative or productive. And there are some practices that are liberating but are not necessarily productive either. Sometimes consciousness raising is not necessarily a good thing unless you, as the person who facilitates that, are prepared to continue going down the road and creating conditions that will facilitate some kind of transformation or some kind of transition into the next thing. I like liberating constraints because I think it best describes the kind of writing practices we do, and it best describes the way I try to interact with graduate students when I meet with them."

Identity transformations, I muse, by way of liberating constraints. A serviceable description of what Dennis does? Too early to say. I'm too impatient. Hangtime, stupid! I glance at my watch. To my surprise, we've already been at this for over an hour....

Repeatedly Dennis interweaves his thoughts on his classroom writing practices with his own development as a literacy scholar and with his current relationship to his graduate advisees. "I don't see any difference between my teaching of a class and my working with a graduate [student] except that I understand the relationship as one that has much larger boundaries. So in a course I know it's over at the end of the semester, and I think about it like that.... With graduate students it doesn't work that way. It's much more complex, and I find I need to be involved on several levels all at once...."

Halfway through the second hour, I feel as if my mind were beginning to set. Dennis's blue eyes glisten as his language darts from observation to quip. The acoustics of the room gradually change, as if the fourth wall of the suite, the one behind me, has dropped away. The discourse envelops my powers of discrimination like a narcotic. I am not up to this, I chide myself; I am never going to cut it as an academic. I'm not ready for any "heavy life transformations," as one grad student I've interviewed called them. That'll be it. The next thing you know, Dennis will start in on the heavy life transformation stuff....

"If you're going to do theoretical work, if you're going to work an idea, you don't just add that to your life. Like you don't say okay, I'm going to do all these things and then I'm going to do this. I have found...okay, this is it. I finally talked myself into what I want to say...."

Oh, no; this would be too perfect...

"I have found that the hardest job about working with students or doing theses or dissertations is helping them to understand that when you do theoretical work, your work, your whole life changes and you'd better be prepared for it. Big things change. Your relationship to your family will change. I mean, your life is configured differently. It doesn't end at 4 o'clock. You will have the need to talk about things constantly. You will be obsessed with an idea. You will not want to make dinner. Whereas you may have thought that the most wonderful thing in the world would be to go sailing for a day, maybe in the middle of your thesis the most wonderful and important thing for you would be to sit at home and to read that book. And people around you may not understand that. So, you need to really develop a relationship with your work to be able to talk about it to other people in ways that will help them to understand. Everything changes in some way."

Right. On. Time....

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He continues to answer my questions with a response ratio unlike any I will experience throughout the remainder of the mentoring study. Our interview goes on for over 3 hours. Whereupon we leave for dinner at a nearby sushi restaurant, where the conversation continues. When at last I make it back to my room past midnight, I collapse into the thick of the comforter and pass out into a sleep crowded with exotic dreams and the portent of transformation.

Alvermann's write-over of Hruby's fictive account

Before me lay the parts—full transcripts of George's interviews with Dennis Sumara and four of his graduate advisees at Simon Fraser University, our response data to that site's video guides, and George's fictive account of the visit. A picture puzzle of sorts. Where to begin? I start, as I typically do when attempting to put puzzles together, with the anchoring pieces. In this case, the key pieces are the graduate students with whom Dennis worked. All women, they were at various stages in their graduate work. Danielle and Lois had completed their classes for the master's degree; Sandra and Lydia had just finished their master's theses, and Lydia was making plans to con-

tinue toward a doctoral degree. The women came from diverse backgrounds—conservative, rural Mennonite, liberal, ex-urban middle class, and critical urban feminist. They ranged in age from young adult to middle age, and two were mothers. Three were currently teaching in the schools in the vicinity of Vancouver. All but one (Danielle) had taken one or more seminars with Dennis.

The anchoring pieces in place, I am then free to rummage about in the rest of the data. Returning to George's write-up, my attention focuses on the rich descriptions of the women and on the way Dennis seems to float in and out of George's text. I wonder about this and what it might mean for the sense I will try to make of who these women are, how they connect to each other, and the nature of their relationship with Dennis. Initially it occurs to me that this mentoring arrangement is not one that is familiar to me. Thinking back to my time as a doctoral student at Syracuse University, I recall having friends not unlike the four women described here, but Hal Herber, my mentor, was more centrally located in my academic life than Dennis appears to be in these four women's lives. Curious as to how this new form of mentoring might work, I reread each transcript several times, intent at this point on capturing glimpses of how these women interact around a practice that Dennis refers to as the commonplace book. The women refer to this practice as simply "their writings" (or in the case of Lydia and Lois, "their dangerous writings").

Commonplace books were the locations around which Dennis's advisees shared their responses to literary texts, theoretical works, and their own interpretive writings. This practice, with its emphasis on connecting the academic with the personal, created a structure in which the women were encouraged to think theoretically about literacy and literacy teacher education. It also created flexible opportunities for mentoring, both among themselves and between individuals and Dennis. One of the women, Lois, had extended the practice to include the teachers whom she supervised in her position as school district consultant. She described it this way:

> I've got study groups all over the district now.... And so I sent out an invitation, blanket the district and then tap a few shoulders and say, "Hey, I'm interested in studying [such and such]...you, too?" So people come together out of interest. And then we begin to talk and basically write. We always start with writing now. And we look for things in our writing, and we explore those things. We've got three study groups around later literacy, looking at reading and writing with kids in Grades 4 through...I guess through...oh, about 10.... We do tons and tons of writing.... It's a real source of learning for teachers. It's a little scary, dangerous writing. Teachers are so hesitant to be honest. They don't want to. I had a teacher the other day who said, "I'm going to be honest, I didn't learn how to read until I was 23." Which is kind of a scary thing to say in front of a bunch of teachers (and she is now a teacher).

Lydia also talked about the practice of "dangerous writing" in Dennis's seminars and the risks it entailed, even though the women in her group knew each other well. Lydia believed these women were willing to take risks because they knew that writing around commonplace locations was valued, not for its interpretive "correctness," but for its ability to evoke in others the kind of thinking that would move their learning in new directions. In Lydia's words:

> I think as we got into sharing writing more, [we took] more risks. I mean we all ended up talking about dangerous writing and how, you know, that that's sort of, I think, [what] meshed those writing practices.... Like it wasn't about, you know, this is the interpretation. It was about, okay, you know, here's how I respond to that and here's how I connect to what you said about that.

By encouraging students to focus on the connections between their writing and the writing of others, Dennis facilitated commonplace locations for peer mentoring, as well as one-on-one mentoring arrangements that involved a single student and himself. He set up his seminars, independent studies, and research projects in ways that enabled him to get to know his advisees through discussions they had about ideas that came from their commonplace books. He valued coming to know the evolution of their thinking because it allowed him to say, "Okay, I think maybe now it's time to do this. What do you think about that? Or, I think you've done enough of that and it's time for you to do this."

Although Lydia, Lois, Sandra, and Danielle had different opinions about the appropriateness of the word *mentor* to describe their relationships with Dennis (e.g., Danielle associated the term exclusively with supervising student teachers), all four women were in agreement that whatever else Dennis might do, he was an expert in nudging them along to ever higher and higher levels of thinking. Lydia used the metaphor "little village" to signify what she perceived as the "all inclusive and connecting up" relationships that Dennis's style of mentoring facilitated, such as his notion of the commonplace book and the safe haven it created for women who dared to write dangerously. Sandra and Lois described situations in which they used dangerous writing to grow personally and professionally. And Danielle noted the influence of such writing on her willingness to open up her classroom, to change some of its institutional characteristics by allowing a bit of her artistic nature to seep into her teaching practices:

> I have my own rituals when I write.... I have a lighted, scented candle. I have my symbol that my daughter gave me that I set on my computer, my aura. You know, and I get myself into a certain mind set, oftentimes quiet music going in the background that gets me in a mood where I can make connections and begin to write. So I kind of brought that into the classroom as well. And they [the kids] really responded. They like the kind of warmth that comes with some familiar things. I have a lamp hanging over their reading area.... You know, carpeting in a special area that's just for reading. I have scented candles going in my classroom, and music.... And so it's creating those kinds of conditions for them as well as the openness.

In sum, all four women's descriptions of how Dennis created collegial and mutually supportive environments in which they were personally free to write and think—to sample and take what was of value to them, while simultaneously assuming responsibility for the learning of the group—suggest that the relationships literacy teacher educators build around the notion of mentoring are far more diverse than what we had been able to capture in our original mail survey. And while this particular picture of mentoring remains a puzzle only partially completed, we can begin to see from the pieces in place that the notion of building commonplace locations for interpretive thinking is one way of both staying connected and moving in and out of our graduate students' lives.

Hinge

By modeling alternative ways of reporting the results from one particular site visit at Simon Fraser University, we hoped to make a case for using a variety of aesthetic devices in writing up qualitative data on mentoring practices in literacy teacher education. We also hoped to model how, in keeping with Dennis Sumara's interpretive practices, it is possible to write a research report in a way that captures the aesthetic nature of his particular form of mentoring and its effects on the lives of four teachers' literate practices.

The narrative techniques we used are not new. Over two decades ago, the well-known historian Hayden White (1978) argued for a greater presence in scholarly journals of "impressionistic, expressionistic, surrealistic, and (perhaps) even actionist modes of representation for dramatizing the significance of data" (pp. 47-48). More recently, a number of scholars in the social sciences (Eisner, 1997; Lawrence-Lightfoot & Davis, 1997; Polkinghorne, 1997; Richardson, 1997) have continued to press for a style of academic writing that blurs narrative knowing, sociological telling, poetry, and film making. Specifically, Polkinghorne (1997) has argued for a narrative format in reporting research that enables researchers to experiment with ways of giving voice to the people they study. It is Polkinghorne's belief that "by changing their voice to storyteller, researchers will also change the way in which the voices of their 'subjects' or participants can be heard" (p. 3). But such hearing may not come easily for reasons we discuss in the last section of the article.

Panel 3: Reflections on attending to aesthetics in literacy teacher education

In this article we have relied on various aesthetic and reportorial narrative forms for writing up the data we collected on mentoring graduate students in literacy teacher education. Although we acknowledge that such forms are not conventional by the current standards of literacy research, and that some of our readers may not have been sufficiently prepared to make sense of them, we nonetheless believe these forms provided us with a valid means of interpreting and representing our data. The narrative forms we used for reporting our research call for quotations taken verbatim from the transcripts of tape-recorded interviews. Our reported observations of the sites were taken from field notes written during or immediately after the visits. We restricted our narrative manipulations to the representations of the narrator and the narrative voice. This was necessary in order to produce the sort of dramatic tensions (Nabakov, 1980) that make for a dialectic of conflict, which can carry the reader's interest forward in an aesthetic narrative toward a resolution. As a result, it should be understood that the narrator of an aesthetic narrative is not to be confused with the researcher-author.

Gains and risks

The use of fictive representation and new journalistic techniques allowed this particular research dyad, one which is also a mentoring dyad and therefore beyond objectivist redemption, to report its research findings in something other than the traditional format. By telling the story of each site visit to one another using different narrative forms, we express our own story as well. Rather than categorically and woodenly listing what we imagine our positioned biases and socially constructed perceptual limitations to be, we attempt to express these research constraints integrally as part of a crafted report.

We try our best to show rather than tell the story of our research, and *tell-on* rather than *tell-of* our reportorial perspectives. Granted that this is often done with the interpretive wisdom of hindsight, we nonetheless feel it presents a subtle and nuanced conceptual layering of experience. Using aesthetic narrative forms, then, is not a confounding of reality; rather, it is exemplary of the processes by which we construct realities about the men-

toring process in literacy teacher education. Such construction requires that we ground our experience not only with conceptual and theoretical bases, but also with our visceral and emotional conditions. Aesthetic narratives allow us to report on just such bases and conditions and the way in which these mediate our understandings.

The use of fictive representation in writing up our data allowed us to capture vividly that which would otherwise have remained unspoken and been lost in our personal experience at each site. It also enabled us to use metaphorical and evocative language in ways that captured the participants' personalities and accounted for what they gave to, and took from, the mentoring process. Using language to vivify this process, as Barone and Eisner (1998) reminded us, is still far too uncommon in the teacher education literature. And, we would venture to say, such an absence marks the field of literacy education as well.

Other gains were also noted. For example, using aesthetic forms of writing to report the results of the six site visits provided us with a means to communicate the artfulness and creativity involved in effective mentoring practices. At the same time, it drew attention to certain dilemmas in mentoring, such as the one Sumara identified in his interview with Hruby. Concerned that in the past his own attempts at consciousness raising—both through advising and in literacy education courses—had often failed to prepare individuals sufficiently for the transitions and transformations he expected of them, Sumara had developed fairly elaborate scaffolding practices, which he referred to as *liberating constraints.* These practices, which enabled students to grow in their understanding of themselves and others through highly interpretive writing strategies, led to an effective and creative form of comentoring (Mullen, 1997). They also led to an increased awareness of how personal narratives that are phenomenologically grounded can make theorizing about one's educational experiences a less intimidating and formal task than one might otherwise have imagined.

But narrative technique is not just the swapping of stories and anecdotes. Its end point is the construction of nuanced, often literary, narrative representations open to complex, transactional, and social interpretations. Pioneering work by Eisner (1988), Lawrence-Lightfoot and Davis (1997), Richardson (1993), Tierney (1993), and many others have inspired our own efforts. However, we grant that we have much further to go toward both securing this currently plank-loose and wobbly methodological scaffold and reassuring the doubts of the larger research community.

Although we have found the collective interpretation made possible by a narrative approach gratifying, and the use of aesthetic narrative forms and new journalistic techniques enlightening, there are serious risks in this sort of methodology. In *Interpretive Ethnography: Ethnographic Practices for the 21st Century,* Denzin (1997) pointed out the dangers of new journalistic and fictive approaches, and he gives a pair of chillingly detailed examples of how things can go wrong. More recently, there has been an academic uproar over reports that the testimonial of Nobel Peace Prize recipient Rigoberta Menchu was partially fabricated (Preston, 1999; Rohter, 1998).

While these cautionary tales are worth bearing in mind, we believe the problems they exemplify have little to do with the mode of data representation these writers chose, but rather with the integrity of the data itself, or with the integrity of the authors' methodological assertions. Even the construction of composite characters (Denzin, 1997) would fail to be problematic provided the writer was explicit about using such a technique and convincing in his or her justification for using it. To not do so was quite simply to falsify, to misrepresent. But such tortured uses of narrative are abuses of representational ethics, not of representational technique.

The more serious risk we face using these representational methods is that we may lose an important segment of our intended audience. Even as the use of fictive tropes and narrative technique makes our research available to the broader community of educated nonspecialists—the student, the teacher, the citizen—such devices may serve to cut us off from the more insular community of literacy researchers. As Eisner (1993) has noted, research that would make use of aesthetic or literary techniques requires a readership familiar and conversant with such techniques.

Increased experimentation in reporting research anticipated in the 21st century

The opening up of publication venues to include writing that makes use of various forms of aesthetic narrative has already begun (Alvermann, Commeyras, Young, Randall, & Hinson, 1997; Lawrence-Lightfoot & Davis, 1997; Rapp Ruddell, in press; St. Pierre, 1997). Examples specific to mentoring in teacher education, though limited in number, include Stansell's (1997) autobiographical account of his journey from being a graduate student mentee to becoming a mentor himself, and Jipson and Munro's (1997) reconstructed version of a taped conversation between themselves (a professor and her former doctoral advisee).

In the latter example, Jipson and Munro (1997) use fragments f om 7 hours of taped dialogue of their evolving relationship (since Munro graduated) to construct a new dialogue—one that is a pasticcio of thematically related fragments from the original conversation. The result

is a research report reminiscent of the filmscript of *Thelma and Louise*, only this time the two women are academics. By embedding their voices in the popular filmscript, Jipson and Munro (like Thelma and Louise) challenge the accepted norms for representing themselves. They also call into question the conventional approaches for reporting research on mentoring within the field of teacher education.

Thoughts of new publication venues for reporting research that makes use of various forms of the aesthetic narrative inevitably call to mind Eisner's (1997) warning against substituting creativity and cleverness for substance. His advice—that "we need to be our own toughest critics" (p. 9)—seems sound. But the choice is not one between dualistic antitheses. We believe that substance often can and, when possible, should be creatively and cleverly presented.

As Joyce (1916/1991) suggested, the aesthetic negotiates a course between the pornographic and the didactic. That is, an aesthetic work must be a presentation no less than a representation; it should be appraised as a thing in and of itself. Put another way, the cleverness of a writer's craft must trim the sail of communicative effort so as to transport the ballast of substance. Such forward movement in narrative is what Gardner (1983) called *profluence*, a structured effect that Hruby deliberately tried to illustrate in his write-up of the data from interviews conducted at Simon Fraser.

We hasten to add that every text, whether primarily informational or aesthetic, makes use of dramatic effects (Kennedy, 1998; Rosenblatt, 1994; Williams, 1997; Wright & Hope, 1996). Although the literacy research community identifies scholarly works by their distanced, judicial, and objectivist tone (thanks to the rhetorical and stylistic devices they employ), the result is no less an emotionally grounded one—a result grounded in confidence, reassurance, familiarity, and security—than that which might be wrought by less traditional modes of scholarly discourse.

There is a point, however, where the emotional demands for confidence, reassurance, familiarity, and security—the current emotional demands of academic writing--become deadening to the development of novel, satisfying, and efficacious insight. Considered in this way, the careful conservatism of scholarship might seem to be anchored to an unreasonable existential timidity. Like a child afraid to be left adrift in the social unpredictability of his or her first day at school, the academic traditionalist may well fret over the impending rhetorical experimentation we foresee in the 21st century. We confess that we are as much at a loss to reassure this hypothetical scholar as we would be to reassure the child. Who knows but that something untoward might happen after all.

But we doubt it. We also doubt that reassurance, familiarity, and so forth are particularly facilitative of careful or critical thought (at least not any more so than are novelty, delight, or incitement), or that the latter emotions are any more disruptive of careful or critical thought than the former. Indeed, a case could be made for the dysfunctionalizing somnolence induced by the emotions of safety promoted by the current stylistics of academic writing. And, we suspect at bottom, beneath the insistence on measured clarity and distance (and the emotions of safety such devices are meant to promote), crouches a perhaps unhealthy, or at least unsavory, desire to concretize and enshrine the familiar. Our purpose in this article has been to explore alternative modes of representation that may prove credible for reporting research on mentoring in literacy teacher education—even as they problematize and disrupt our embrace of the familiar. We anticipate more such exploration in the new millennium.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

RRQ SNIPPET

How will literacy be defined in the new millenium?

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Definitions of literacy are not mere statements for academic discussion. They are implicit in local, state, and national assessments of reading and writing ability, as well as in public policies regarding issues such as ending social promotion and providing remediation.

While the term *literacy* is sometimes used as if it were synonymous with education or even with the ability to negotiate all the challenges of life, most definitions of literacy of the past and present have generally shared three commonalties: (a) the ability to engage in some of the unique aspects of reading and writing, (b) contextualization to some extent within the broad demands of the society, and (c) some minimal level of practical proficiency. I will focus on the probable impact of three societal changes on the implicit definition of literacy.

Audiobooks

The remarkable increase in recent years of the availability of books recorded for listening can be expected to continue apace. These books recorded on tape or CD can be purchased, rented, or checked out of public libraries. The number of titles is large and ever growing, including many more unabridged versions. As a larger percentage of adults and children become occasional or regular listeners to recorded books, the pressure to include such listening within the definition of literacy will gain ground. Already, some of us find ourselves responding positively to the question of whether we have read a certain book, when in fact we have only heard it.

There will be several implications for literacy theory and research of the pressure to include listening to books in the definition of literacy. First, it will be impossible to continue to exclude listening from literacy. Those who would have done so in the past will probably focus instead on the differences between ordinary conversational listening and literate listening, making the latter more or less synonymous with text comprehension as defined in cognitive science.

Second, studies in learning from text will continue to reveal the general inferiority of listening as a learning mode, compared with reading, at least for older good readers. Intervention studies will investigate whether certain listening strategies and text characteristics can narrow or eliminate the gap. The tension between these two implications will result in disputes over how much school children should be allowed to listen to text rather than read it, and whether there should be listening comprehension subtests added to literacy assessments.

Locating information on the Internet

Nothing exemplifies the difference between reading and writing as school-based activities and literacy as a society-based practice more than the widespread increase in uses of the Internet. Literacy has long involved the contextualization of reading and writing within society's demands and opportunities. The Internet is fast becoming the most ubiquitous and revolutionary example of contextualized reading and writing ever seen.

In response, some educators and politicians can be expected to advocate for performance assessments of student and employee abilities to locate and compile information of various kinds from the Internet. These assessments are more likely to be added to than to replace more traditional assessments of reading and writing ability. The principal challenge to the design and implementation of such assessments will probably come from those who

see reading as much broader than just locating information and writing as much broader than just composing questions on e-mail or keyboarding terms into a search engine. Eventually, however, employers will have their way in demanding evidence that students can apply their reading and writing abilities to the real-world environment of the information-based workplace.

Self-publishing

The courts in the United States, at least, have maintained something very close to First Amendment absolutism in publishing over the past 4 or 5 decades. The political and social sensibilities of those who have chosen careers in print journalism and publishing have served as the only restraints on absolute freedom of the press. Publishers have exercised these restraints by making much of the distinction between censorship and use of guidelines in deciding how to edit and what to publish.

Self-publishing, especially on the Internet, combined with continued support for absolute freedom in the courts, will soon end all use of guidelines as restraints on freedom of the press. Pornography aside, the availability of hate speech, unregulated advertising, and alternative political and religious speech on the Internet will bring an increase in the need felt by many educators to teach students critical reading and critical literacy. As a result, the political tension surrounding the literacy curriculum can be expected to continue to heat up.

Overall changes

Together, these changes in the implicit definition of literacy will have several types of impact on literacy theory, research, and education. After several decades of increased emphasis on writing in definitions of literacy, audiobooks and the Internet will once again make reading appear more important than writing. There will also be an increased tension between the value of reading or listening for pleasure and the functional uses of reading and writing to learn and to work. Literary reading and writing will be seen as more elitist and less valuable in society, compared with more instrumental uses of reading and writing. High-stakes assessments will move away from literary reading toward performance assessments of real-world uses of literacy in learning and work. Literacy education will become even more political as teachers and curriculum planners struggle to add critical reading and critical literacy to the curriculum.

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I was sitting on the floor with two second graders, Jerry and Kaleb. The boys are in a small school whose teachers believe that literacy is defined as "making meaning of the world." During a schoolwide study of the Caribbean, Jerry and Kaleb were working together on a research project on the Bahamas. They had chosen their focus in part because of Jerry's interest in Christopher Columbus's arrival. Both boys shared with me their thoughts about their topic and what they had done to gather information.

As they talked, I realized Jerry and Kaleb are children of the future. They are active readers and construct personal understandings of the texts they read. They connect new information to their previous beliefs. At the age of 7 they have access to the bulk of the information known to civilization. Through the resources at their fingertips, they can encounter theories, perspectives, personal beliefs and opinions, and outright lies. They are already developing the strategies they need to search for both interesting and relevant information, to write and talk about their understandings in their own words, and to synthesize ideas from multiple sources. But, as a researcher, a teacher, and a parent, I am beginning to question whether that level of literacy will be enough in the new millennium.

It is clear the boys already have a sense of the wealth of information at their disposal. When I ask how they find information about their topic, Jerry responds easily, "Well, it's all over the place. It is in magazines and in books." Kaleb adds, "We can get it most anywhere, and it is in the *World Book* [encyclopedia]." Jerry cuts back in, "I can find it in history—I have it on a history CD." As they talk, Jerry leafs through their printouts from the computer. He uncovers a half page of his own writing about Columbus and shows it to me.

Jerry: [reading from his paper] There are a lot of theories about where he traveled and the route he took. None of the theories quite fit all of the evidence. He made landfall and then traveled to Long Island. Then traveled to Fortune Island. Then traveled to the Ragget Islands and later traveled to Cuba. I did this research on Columbus from a homepage by Keith A. Pickering.

Me: How did you find that out?

Jerry: I looked it up on my laptop—I got on the Internet and went to Yahoo, and I think I typed *Christopher Columbus*, I think. And we [Jerry and one of his parents] pressed *search* and we got a couple of pages of some places that he went, and some theories and there

was a game where you got clues and you got to match the research and you tried to make up a theory. It was interesting...I thought.

Me: Who is Keith Pickering? [gesturing to the last sentence of his paragraph]

Jerry: That is the man that designed the Web page.

Me: *How does Keith Pickering know?*

Jerry: [Looking up at me but without hesitation] He did a lot of research on him.

Jerry and Kaleb knew of a lot of sources on which to draw. They named books, magazines, CD-ROMs, and encyclopedias. Kaleb had printed out information from Encarta. But the one source that drew Jerry's attention—the one source he read, developed a personal understanding of, and then wrote about in his own words—was from a Web page by Keith Pickering.

How does Keith Pickering know? Is he someone Jerry can trust? Are his sources of information credible? How dependable is his theory about Columbus's arrival in the New World? Although Jerry had other texts, it was Keith Pickering's Web site that caught his eye. It was in an interesting game-like format. How can we decide if Keith Pickering's theories were valid? And more importantly, how can we help Jerry and Kaleb be able to decide for themselves what sources of information are trustworthy? This is one of the key questions I think we have to face as a society in the new millennium.

What stance or strategies will be important if Jerry and Kaleb are going to be literate citizens as they become adults in the 21st century? First, I believe it will be imperative that they assume a stance that includes an interrogation of the author, the author's background, perspectives, and expertise. It will not be enough for them to seek out multiple sources, given that the number of sources available will be limitless. Instead, Jerry and Kaleb must be able to understand how an author's knowledge, personal agenda, and subjectivity may have shaped the information they are reading.

Such an interrogative stance implies that Jerry and Kaleb will need to draw on specific strategies when constructing meaning from sources found on the Internet. Whether conducting online searches, shopping for presents, or participating in chat rooms, they will need to develop a sensitivity to the use of persuasive language or other propaganda techniques, to consider the context, to expect the use of references, and to look for credentials, affiliations, or descriptions of supporting organizations. Finally, they will need to consider carefully whether they, as individuals, have enough knowledge or expertise to judge the credibility of sources, and they will need to know who to turn to for support in making decisions.

In contrast, I think back on my life and what being literate has entailed. When I was growing up, my parents and teachers screened the books I read. The state analyzed the quality of the textbooks I studied. As an adult, when I choose reading materials the publishing companies, newspaper editors, and television networks have already had a first cut at evaluating the work of authors in terms of credibility of sources and reliability of information. As a teacher, I expand my knowledge base by reading refereed journals in my field. As a researcher, I have acquired expertise at critiquing the rigor of research, and I use that ability as I consider the value I place on the findings of studies.

As I watch Jerry and Kaleb, I begin to get an inkling of the literacy strategies they will require in their world. On a daily basis they will need to screen, to analyze, to evaluate, and to critique potential sources of information they have available. They will need to know also when they don't have the expertise or prior knowledge necessary to judge the credibility of sources, and they will need to know to whom to turn for support. Only then can they understand how to weigh, discount, or value the information they encounter as they create a personal understanding of their world.

Assuming an interrogative stance of questioning both the text and the credibility of sources is certainly not a new strategy. In retrospect, I needed to be critically conscious of what was presented as factual information in the state-approved texts I read about Columbus. Questioning assumptions, beliefs, and values underlying newspaper articles, television shows, and journal articles was as necessary when I was a student as it will be in the future. I believe that what will be different in the new millennium is the accepted view of what basic literacy entails.

McCarthey and Raphael (1992) noted that definitions of literacy evolve as a result of the consensus of members of society. In the 1800s literacy was seen as being able to recognize and pronounce words; in the 1920s literate students were expected to silently read passages and be able to answer comprehension questions. Today's national assessments assume students should be able to make some inferences about text as a sign of basic literacy. Literacy in Jerry's and Kaleb's future may be defined the same way their teachers define it now, "making meaning of the world." But I sense that in their lifetime, given the technological resources of their world, the basic level of literacy expected by society will mean that they will need to be *much more critically conscious of what they are using to construct meaning* than I had to be.

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In the past, literacy has been defined in many ways, most of which focus upon knowing how to read—with knowing how to write being a secondary requirement (Harris & Hodges, 1995). In the future, I think the definition of literacy will become more standardized with rate of reading and accuracy of spelling being part of the standard. There are many students who can read, but read so slowly that they should not be considered as literate, and are more appropriately considered as disabled (Carver & Clark, 1998). The main reason that they read words so slowly is probably that they cannot accurately spell the words they know when listening.

The first goal of literacy education should be to help beginning readers, who are at Literacy Level I, learn to comprehend written texts at the third-grade level of difficulty—with a reading rate that is comparable to the highest rate they could comprehend the same text if it was read aloud to them. Students who have achieved this level of literacy are at Literacy Level II and will be called intermediate readers.

The achievement of Literacy Level II will require that students have a mastery of spoken language necessary to comprehend the words, concepts, and knowledge contained in third-grade-level texts. This means that they must be able to comprehend third-grade-level texts when they are auded, that is, when listening to them being read aloud. The achievement of this first goal, Literacy Level II, will also require that students be able to raud these texts in printed form (Carver, 1997). In order to raud third-grade-level texts, students must be able to recognize rapidly the correct spellings of all the printed words in these texts; this means that each word used in third-grade-level texts must be raudamatized. A raudamatized word is one that can be processed for meaning in a printed text at the same fast rate that the individual can process the same word when it is auded. It may be noted that the concept of raudamatized words is similar to automatized words (e.g., Stanovich, 1980), or unitized words (Ehri & Wilce, 1983), but it is different in that the rate criterion for a raudamatized word is based upon the fastest rate that the word can be comprehended during auding.

Beginning readers cannot simply learn to figure out how to pronounce a new word from context or from spelling-sound correspondences. These students must practice each new printed word until it has been raudamatized. Words cannot become raudamatized until (a) the words can be spelled relatively accurately, and (b) the correct spellings of the words can be recognized relatively rapidly, whether in context or in a list. New words must also be practiced so they can be recognized at the individual's own rauding rate; again, this is the fastest rate at which they can aud the words in sentences that are relatively easy for them to understand.

So, the first goal of literacy education is to help beginning readers who are at Literacy Level I learn to raud printed texts written at the third-grade level of difficulty, and thereby achieve Literacy Level II. Again, this means that students (a) must learn the meaning of these words when they are spoken, (b) must learn how to spell these words relatively accurately, and (c) must learn to recognize these words in printed texts at the fastest rate they can be recognized when they are spoken. In short, these words have to be raudamatized so that when they are encountered in printed sentences they can be rauded at the individual's own rauding rate.

The second goal of literacy education should be to help intermediate readers who are at Literacy Level II achieve Literacy Level III and thereby become advanced readers. This means that individuals need to be able to raud books, newspapers, and magazines that help them function fully as citizens. Since these kinds of materials are typically written at about the eighth-grade level of difficulty (Carver, 1975), this means that a literate person should be able to raud texts at the eighth-grade level of difficulty. In order to reach Literacy Level III, intermediate readers must learn to raudamatize the words used in texts at this level of difficulty. Again, this means that students (a) must learn the meaning of thousands of words, (b) must learn to spell these words relatively accurately, and (c) must practice these words until they have learned to recognize correct spellings rapidly. When individuals have learned to raud almost all texts written at the eighth-grade level of difficulty, then they have reached Literacy Level III, which is the main goal of literacy education.

In summary, it seems likely that in the future, literacy will be defined in a manner that includes accuracy of spelling and rate of reading. Beginning readers, who are at Literacy Level I, need to be helped to become intermediate readers and thereby achieve Literacy Level II. This means that beginning readers must learn to read and understand the sentences in written texts at the third-grade level of difficulty at the

same rate that they could comprehend these same sentences if they were listening to them being read aloud. In short, beginning readers need to learn to raud third-grade-level texts by raudamatizing the words in these texts. Intermediate readers, who have achieved Literacy Level II, need to be helped to become advanced readers, or achieve Literacy Level III. This means that intermediate readers need to learn to raud written texts at the eighth-grade level of difficulty at their own rauding rate. Individuals need to have raudamatized the words in eighth-grade-level texts so they can be fully functional citizens and literate persons.

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For about 5,000 years human beings, and until recently only the privileged ones, have learned to read and write (Diringer, 1968). Early authors carved symbols into stone with chisels, while others made impressions with sticks in mud or wax (Diringer, 1968). The brush and parchment were more efficient, and so they became the standards for a time. Later on, quill pens provided an improvement, and they were used to produce multiple copies of books. The printing press increased the production of copies considerably, but with the exception of the elite—the priests and the highly educated sons of rich families—reading and writing remained inaccessible to most (Hadas, 1954). The common school and universal access that began about 160 years ago brought literacy to millions in Western societies (Matthews, 1966). The availability of free public education, mass-produced educational texts, consumable workbooks, inexpensive pencils, individual slates, and other technologies changed literacy, particularly literacy education, and significantly advantaged individuals in Western societies. Changes in literacy technology continue to drive changes in literacy today.

A Western view of learning, including the use of English and its philosophy concerning what constitutes important knowledge, was imposed on students around the world. Many ask "how well students have been served by the subjectivities celebrated by the assigned literary classics, the history and geography of Western civilization's relentless advance, and the scientific pursuit of the knowing division and conquest of nature?" (Willinsky, 1998, p. 112). English is and has been a colonizing language because participation in the world society, it is claimed, particularly economic and scientific but also with popular culture, is difficult without it. The major sources of technical information and innovation, for instance, are written in English.

The case of the United States is remarkable. Advances in printing technology, an increasing affluence, the development of large publishing firms, and higher interest in reading have resulted in an increase in publications from just over 10,000 books in 1950 to over 60,000 in 1995 (Kilgour, 1998). Kilgour suggested that electronic-based books and informational databases will begin to gain in popularity, but that traditional printed books will not fade quickly. Lemke (1995) observed that students who are computer users have developed perceptual strategies to deal with the hundreds and thousands of visual images they see in electronic games and information databases in ways that older individuals have not. He suggested this has had a profound effect on the way they process information. They have become adept processors and users of electronically generated graphic and textual information.

Traditionally reading has meant reading aloud (Hadas, 1954). A focus on comprehension is a feature of the 19th and 20th centuries in Western societies (Boyarin, 1993). Good oral production is viewed by many cultures as the primary goal of reading (Boyarin, 1993). Leu (in press) speaks eloquently and convincingly that technological development continuously changes both what constitutes literacy and the way literacy research is conducted. He concludes, "Moreover, the globally competitive context in which we find ourselves ensures that new technologies for information and communication will continually be developed, resulting in continuously changing literacies and envisionments for literacy."

Technology will continue to change the way privileged human beings view literacy. Children from middle class homes have greater information access at school and tend to be privileged further because they are also more likely to have the facilities at home (Gunderson & Anderson, 1999). As Garner and Gillingham (1996) noted "perhaps

most disturbing of all, computers and telephone access seem very much a luxury to poor families and poor school districts" (p. 16). They added that "20% of the poorest households in the United States do not have telephones," concluding that children from these homes are relegated to being "information have-nots" (p. 16). This is also the case for millions of students in countries around the globe.

The 21st century literacy elite will be English-speaking individuals who will find technology to be user friendly. For others, English will continue to be a colonizing language, only at an accelerating rate. The disparity between literacy haves and have-nots will widen in developed countries as literacy becomes more electronic based and limited by income, the language of technology, and access. The disparity in access and the range of what constitutes literacy will increase dramatically between developed and developing countries. Technology will drive a change in what constitutes capital, the creation and control of information (Lyotard, 1991). The definition of reading will broaden, and literacy researchers will become embroiled in more complex questions about its definition.

Electronic learning disabilities will be a factor in the increasing diversity as some students find it difficult or impossible to deal with electronic and hypertexts. An increasing number will favor electronic information processing and will become unable to deal with printed texts—they will become print disabled. Technology such as electronic books, CD-ROMS, and the Internet will exacerbate inequalities and disparities between programs within and between classrooms, schools, districts, municipalities, states, and countries. Rather than eliminate literacy problems, technology will create a wider range of them, thereby ensuring that teachers will be required to attempt to solve them, and that they will also be accused of being responsible for them. It will become increasingly difficult to ensure that all students acquire the literacy skills they need to participate in the increasingly competitive information marketplace.

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Over two decades ago, Mitroff and Sagasti (1973) observed:

> In many instances, the most troublesome problems of any discipline center on its most basic terms and fundamental concepts and not around its more sophisticated concerns. To the extent that everything is derived from a discipline's basic terms and fundamental concepts, problems at higher levels can always be traced back to problems at a more fundamental level. (p. 117)

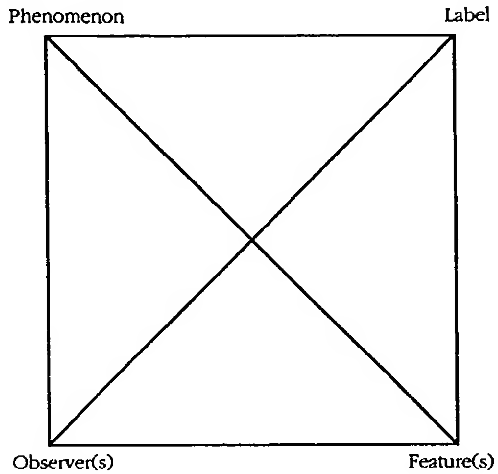
This observation is particularly true of reading. While many things about reading will change over the next millennium, the most important change will be in the definition of reading itself.

In the following essay, I argue that how the definition of reading will change in the new millennium is completely predictable. This is because all attempts to define reading are really agenda-setting and agenda-implementing endeavors. Although aspects of these agendas change, the nature of agendas does not. In the year 3000, as in the year 2000, reading will be defined in terms of the interplay of agendas that are set and implemented by different levels of society—from the reader himself or herself, to the teacher, to the designer of the computer-adaptive testing and instruction reading program, to the school district, to the state, and to the nation.

To understand this, consider first what makes up definitions of reading. At their simplest level, all definitions consist of four parts: (a) the phenomenon being defined, (b) observers of the phenomenon, (c) the phenomenon's label, and (d) features that enable us to understand the label as it relates to the phenomenon and the observers (Mosenthal & Kamil, 1991). Together, these four components of a definition are represented in Figure 1 in what might be called the Definition Square.

At the simplest level, definitions of reading consist of a set of observers who advocate for a set of features that define reading. To illus-

Figure 1 The definition square



trate this, consider the definition of three observers and their features (as cited by Harris & Hodges, 1995, p. 207). Reading is:

1. distinguishing the separate letters both by the eye and by the ear, in order that, when you later hear them spoken or see them written, you will not be confused by their position (Plato, 340 BC);
2. nothing more than the correlation of a sound image with its corresponding visual image (Bloomfield, 1938);
3. the central thought process by means of which meaning is put into the symbols appearing on the printed page (Gray, 1940).

(Definitions cited from Harris & Hodges; no references for the definitions provided in the book.)

Note that, in the above, three different observers have identified, at different points in time, three different definitions consisting of different features. For instance, we see that Bloomfield, in 1938, saw reading as a simple correlation of sound with its corresponding visual image. Gray, in 1940, redefined reading as a thought process.

What these simple examples suggest is that, for all established definitions of reading (be this in research, practice, or policy), there are always two sets of observers: There is the *primary observer* who first proposes the definition features; and there are the *secondary observers* who endorse (and often advocate for) the features of the primary observer. In some instances, primary observers do more than simply list features to define reading (Mosenthal & Kamil, 1991). For instance, they may create taxonomies where they organize many features into broad categories. They may go a step further and create models where they establish temporal and even causal relations between feature categories. They may even go so far as to define reading in terms of one or more tasks, consisting of the noted categories found in research Method sections (i.e., participants, materials, procedure [administration and scoring], situation organizer, and setting). They may get really sophisticated and define reading in terms of a research study consisting of a model in the rationale section, tasks defined in the Method section, a set of outcomes in the Results section, and extended interpretations of the model based on the results in the Discussion section.

But while new definitions of reading continue to be created based on feature lists, taxonomies, models, and theories into the new millennium, these definitions themselves will not capture the true nature of reading. This is because reading itself is not a neutral term—it is, in effect, an evaluative term. In other words, to understand reading, we need to understand not only the answer to "What is reading?" but also the answer to the concomitant question, "What should be the definition of reading?" Note that as soon as we introduce the notion of *should be* into the equation of defining reading, we move beyond a scientific approach to an agenda-setting and agenda-implementing approach for deciding reading's fate and future (Mosenthal, in press).

When reading is defined in terms of agendas, we begin with the observation that reading, at various levels, involves goals. Goals are not neutral; they represent desired outcomes or conditions. As such, goals are outcomes or conditions that *should be* attained according to some primary or secondary observer's beliefs, values, perspectives, or practices. When a desired goal is blocked, a problem is said to exist. As such, problems represent undesired conditions or states—that is, conditions or states that *shouldn't be*. Moreover, problems represent an impasse in our ability to change *what has been* or *what is* into *what should be*.

Second, agendas cannot be set by just anyone; rather, only certain individuals or groups have the legitimacy, ability, and power to set agendas. Third, agendas are set to benefit some but not others. Fourth, agendas are set to have an impact on different levels of organization and

action (e.g, the individual level, the state level, or society at large). Fifth, the extent to which agendas can be carried out is limited by the amount of available resources such as money, time, and human resources.

Sixth, to achieve goals or solve problems, agenda setters prescribe a set of ideal actions to be taken. (In this regard, prescribed actions, like goals that should be and problems that shouldn't be, also reflect values [i.e., they are actions that *should be taken*].) Seventh, once actions have been prescribed, agendas then include actions taken. Eighth, actions taken result in outcomes actually realized.

Finally, agendas usually include some form of evaluation or assessment. On one hand, evaluation is used to determine the extent to which actions actually taken relate to actions prescribed. Evaluation is also used to determine the extent to which the outcomes of the actions taken represent successful goal achievement or problem solution. When taken together, these various features constitute agendas.

As in the past, the new millennium will face the same definitional issues associated with setting and implementing reading agendas (Labaree, 1997; Mosenthal, 1993, in press). There will always be the issue of whether reading agendas should be set in such a way as to benefit primarily the whole of society (as in teaching reading to promote a common cultural, moral, and intellectual heritage or to ensure an effective distribution of labor for the workforce); various groups who, on the basis of race, ethnicity, gender, or gender preference, have been denied equal opportunity and access (as in creating emancipation as well as appreciation of diversity); or the individual himself or herself (as in promoting self confidence, self-worth, self-esteem). Then again, there will always be the issue of what should be the ideal goal of reading and what should be the ideal practices as these considerations relate to the decision of who should benefit (and should be passed over) in implementing reading agendas.

Should practices of the past be practices of the future, we will find that, given the free market opportunities for defining reading, there will be a number of reading agendas competing at any one time creating a portfolio of contradictions and dilemmas with which reading researchers, practitioners, and policy makers will have to deal. How well they will accomplish this will depend, to a large measure, on how well they understand reading as an agenda-setting and agenda-implementing endeavor: The more fully they understand this, the better they will be able to strive to create a portfolio of agendas that minimize trade-offs and optimally benefit all individuals at all levels of society—from the *pluribus* to the *unum*.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Political acts: Literacy learning and teaching

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Politics and literacy, linked early in United States history, remain inseparable. One of the first examples of the seemingly benign connections is found in the 1647 Massachusetts "Old Deluder Satan Act," that held:

> It being one chief point of the old deluder, Satan, to keep men from knowledge of the Scriptures...it is therefore ordered that every township in this jurisdiction, after the Lord has increased them to the number of fifty householders, shall then forthwith appoint one within this town to teach all such children as shall restore to him to read and write.... Forasmuch as it greatly concurs the welfare of this country, that youth thereof be educated, not only in good literature, but sound doctrine.
> (http://www.prestonspeed.com)

The law required communities to provide schooling for children when the population reached a minimum of 50 households. A literate population was encouraged for several reasons, including the ability to read and interpret scripture without the need for clerical intervention and the development of an educated polity capable of withstanding political oppression and tyranny.

Later historic periods offer examples of the ways in which literacy was put to more nefarious uses in order to accomplish specific political results. For example, the restrictions on girls and women resulted in ladies' curricula. Many women and girls were denied access to specific content knowledge, Greek and Latin languages, higher mathematics, and science. The gendered curricula for girls and women with an emphasis on the arts and humanities continue to influence the intellectual options of many females. Similarly, the creation of Slave Codes in the southern U.S. penalized those who taught slaves to read and write or punished slaves for becoming literate.

Educational history contains many examples of the inextricable connections between politics and literacy. Terms such as *politicized*, *politicization of literacy*, and *education is political* evoke a range of responses, many negative. Not surprisingly, academics can revive or elevate their careers by creating organizations, writing books and articles, or appearing in various media outlets decrying the injection of politics or political correctness into areas of intellectual inquiry. For instance, the National Association of Scholars emerged in opposition to the perceived radicalization of the Modern Language Association; a similar group formed among historians in response to the emphases placed on race, class, and gender in presentations at annual conferences and in various publications. A comparable movement is apparent among literacy researchers, for example, the recently formed Society for the Scientific Study of Reading and their journal *Scientific Studies of Reading*. Nowadays, political stances expressed in phrases such as states' rights, local control, empowering parents, and emancipatory or liberatory education offer a shorthand method for ascertaining one's politics and where they fit on the left to right continuum.

In some ways, the task of writing about literacy and politics in the millennium would be much easier if distinct ideological stances existed that characterized labels such as conservative, liberal, centrist, or radical. Attaching

a specific political party to one of the labels adds more confusion. For example, conservative Republicans support vouchers while liberal Democrats support public schools; however, such characterizations would not account for liberal Democrats who support vouchers or conservative Republicans who support public schools. We chose not to identify our views as conservative, radical, liberal, Republican, Democratic, or any other loaded term. Instead, we explicate our involvement in various institutions and the contractions inherent in these activities.

While some critical theorists may decry the essentialism associated with race and gender, they remain important factors shaping the politics of literacy. In addition, class and power should not be overlooked in conversations about the intersections of politics and literacy research because they fundamentally challenge the working paradigms. We weave each of these elements throughout this article. Although the foci of the article are reading and writing, we recognize that literacy encompasses many other formats, such as visual and electronic, along with the notion of reading the world.

In the parlance of critical theory, we position or situate ourselves in this manner as a way of showing why literacy cannot be divorced from politics. After clarifying our positions, we discuss several aspects of literacy we view as critical. These include the ideological views that influence literacy research, literacy instruction, literacy materials, and literacy assessment.

Positioning ourselves

The act of acquiring literacy or using literacy has always seemed one of the most personal acts in which an individual could engage. Poetic similes such as "there is no frigate like a book" seem to capture the romanticism of reading. Avid readers describe the heady exhilaration of turning the crisp pages of a new book; entering a used bookstore and discovering a valuable, out-of-print edition; speaking with a favorite author; participating in a book club; or walking into the reading rooms of magnificent libraries such as the Library of Congress. Several memoirs published in the 1990s lovingly describe this affair with books.

We would venture to say that such engagement with fiction and nonfiction texts and aesthetic pleasure are the ultimate objectives of learning to read. Mechanistic views of literacy intrude upon this idealized image, often characterized by dichotomous pairings: top-down versus bottom-up theories, phonemic awareness training versus phonics in context, and metacognitive strategies versus transactions with texts. Of course, these need not be mutually exclusive or warring opposites.

Ordinary and extraordinary acts of resistance have profoundly influenced the ways in which we think about literacy. Resistance has assumed many forms such as learning to read and write during slavery, becoming literate in English, establishing schools for girls, and teaching in schools that were inadequately funded. We are obligated to continue this tradition of resistance and ensure that progress continues. This means that our conceptions of literacy cannot solely focus on psychological or linguistic components; culture, history, family, and other cultural institutions and processes are equally important.

Cornel West (1993) wrote about the existential dilemma of those who engage in challenging, reforming, or radicalizing the very institutions and processes in which they work. We entered literacy work because of our desire to advance the cause of black liberation; yet we teach middle to upper middle class whites, helping to ensure continuation of their class status. Our support of literature is unwavering, but we do work with, and for, publishing companies that create basal readers. In a like vein, we advocate research studies that account for the influence of culture in the lives of children and the ways in which curricula, pedagogy, and materials need to incorporate children's cultures, but a substantial portion of our work is historic in nature. We serve (or have served) on the National Assessment of Educational Progress Reading Development Committee and argue, in classes, that tests often reflect the class status of their designers.

There are many other examples of existential contradictions and dilemmas, but these provide some insight into the factors that shape our perspectives. We wish to promote the option of being *critical organic catalysts.* West (1993) describes a critical organic catalyst as

> A person who stays attuned to the best of what the mainstream has to offer—its paradigms, viewpoints, and methods—yet maintains a grounding in affirming and enabling subcultures of criticism. Prophetic critics and artists of color should be exemplars of what it means to be intellectual freedom fighters, that is, cultural workers who simultaneously position themselves within (or alongside) the mainstream while clearly being aligned with groups who vow to keep alive potent traditions of critique and resistance. (p. 22)

When we consider the intersection of the history of reading and politics in the U.S., we look to the paradoxical nature of their coexistence. As has been pointed out, literacy and politics have worked hand in hand as barriers for many people of color, the poor, and females throughout the 20th century. From the onset, reading has been politicized to support the status quo and to deny access to nonmainstream groups. A review of the history of reading suggests several common themes: (a) legal and customary battles over whose notions of knowledge, truth, and values are considered legitimate; (b) denial of

access to literacy as a means of controlling certain groups; and (c) the creation of a means of assessing literacy that supports philosophically narrow and biased (race, class, and gender) viewpoints.

Our response to the intersection of literacy and politics is both academic and personal. As Gloria Ladson-Billings (1997) has observed, "our position in the academy is typically the result of collective struggle and support. Thus our understanding of our roles includes an interweaving of the personal and the public—the intellectual and the emotional—the scholarly and the political" (p. 59). Our positions at a predominately white research institution in the midwestern U.S. may seem oddly fixed for fulfilling our dreams. We teach mostly white middle to upper middle class students in an English/language arts teacher education program. We believe this is just where we need to be at the end of this century.

Current demographics of teacher educators reveal that future teachers are most likely to be white monolingual females from suburban and rural middle class homes with little or no training in antiracism, diversity, or multiculturalism (National Center for Educational Statistics, 1999). However, demographic projections of the student population in the next century suggest that two out of every three students will be children of color. These students are the people who most likely will teach our children and grandchildren. Yes, this is where we need to be. We need to prepare the students in our classes to acknowledge and affirm the sociohistoric past of all the students in their future literacy classrooms. In addition, they need to be prepared to acknowledge and accept the differences between their worlds and the worlds of their future students. Finally, our students need information, knowledge, and skills for creating and teaching culturally responsive literacy lessons if their future students are to receive a more educationally just literacy curriculum.

We are committed to helping our students develop socially just literacy learning spaces for all children. Entering the 21st century, despite the millennialist hysteria that abounds, we hope for more sure and better promises than the last century has brought us. We believe that education and literacy are fundamental human rights. Moreover, we declare that each child has an individual and collective right to learn literacy in a socially and culturally supportive, responsible, and respectful democratic classroom.

Now we turn to a discussion of the four issues previously identified as the core of this article, the ideological views that influence literacy research, literacy instruction, literacy materials, and literacy assessment. It is important that we make clear our use of two important terms, *politics* and *political awareness*.

Webster's Dictionary (1913) defines *politics* as "The science of government; that part of ethics which has to do with the regulation and government of a nation or state, the preservation of its safety, peace, and prosperity, the defense of its existence and rights against foreign control or conquest, the augmentation of its strength and resources, and the protection of its citizens in their rights, with the preservation and improvement of their morals" (p. 108). To that end, we review the handiwork of several governmental agencies established by politicians to monitor, improve, or reform literacy practices.

Political awareness, or what Paulo Freire (1998) called *conscientization* "is the awareness of the historical, sociopolitical, economic, cultural, and subjective reality that shapes our lives, and our ability to transform that reality" (p. 340). Throughout this article we use political awareness to frame discussions of the connections between politics and its influence on literacy learning and teaching. A framework of political awareness is important, not only because it makes clear the connections between politics and literacy, but also because it can "offer the possibility of a critical analysis" (Freire, p. 509) of the processes.

There are other equally compelling issues not addressed within this article. Among them are the intersection of religion and literacy as exemplified by fundamentalists of many religions. Another is the issue of community control and the power of the community members to determine curriculum and instructional methods. Finally, the volatile issue of bilingualism encapsulates many of the tensions associated with race or ethnicity, language, and literacy. Space does not permit us to address each issue; therefore we have elected to concentrate our discussion on the ideological views that influence literacy research, literacy instruction, literacy materials, and literacy assessment. We also conclude each section by posing ideas to ponder and raising questions to further stimulate conversation within the field.

Epistemological and ideological issues

The linkage between politics and literacy begins at the very seat of U.S. government. Richard W. Riley, the U.S. Secretary of Education, perceptively noted the importance of epistemological and ideological concerns in his address at the Sixth Annual State of American Education Speech at Long Beach, California, on February 16, 1999. Specifically, he stated that, "how we educate their [students'] minds and shape their values now will go a long way to defining the destiny of this nation for decades to come" (http://www.ed.gov/Speeches/02-1999/990216.html). His speech describes a political act of ideological domination and conformity that will deter-

mine what each child is to believe, value, and know to be successful in the U.S. educational system. We believe that the close of this century is a crucial time for reexamining the epistemological and ideological positions that have served as frameworks for most of reading research in this century. Reviews of the epistemological and ideological foundations of literacy research have been offered by Beach, Green, Kamil, and Shanahan (1992); Commeyras, Orellana, Bruce, and Neilsen (1996); Cunningham and Fitzgerald, (1996); and Willis, (in press).

The importance of the role that epistemology has played in the intersection of politics and reading research cannot be ignored. It serves as an explanation for how elite powerful groups, with shared interest in maintaining their status, have worked together to determine how literacy should be conceptualized, defined, taught, and assessed. Understanding the role of epistemology also helps to explain how these groups have worked to convince others of the veracity of their claims by suggesting that alternative ways of viewing the role of literacy in society are invalid because they fall outside of their ideological conceptions.

Epistemological and ideological schools of thought are at the heart of the debates of reading research, methodologies, instruction, and assessment. There appears to be one fundamental question: What knowledge is of most value? Or, as some prefer to query, whose knowledge is of most value? Take, for example, the current push for ideological domination and conformity in reading research based on positivistic and behaviorist views of reading that call for a biological understanding of the differences among readers. These viewpoints are reminiscent of the inglorious research in reading that pointed out that biracial children were superior readers to children of color due to the white blood in their veins (Willis, in press) or the tradition among reading researchers of highlighting the differences among readers based on race, class, and gender. The central question remains, "Whose interests are being served?" Sandra Harding (1991) put it this way:

> The norms themselves have been constructed primarily to produce answers to the kinds of questions an androcentric society has about nature and social life, and to prevent scrutiny of the way beliefs that are nearly or completely culturewide in fact cannot be eliminated from the results of research by these norms. A reliable picture of women's worlds and of social relations between the sexes offer alternative approaches to inquiry that challenge traditional research habits. It is not only that the underlying general principles of the scientific method are not powerful enough to detect culturewide sexist and androcentric biases but also that the particular methods and norms of the special sciences are themselves sexist and androcentric. (p. 117)

Patrick Shannon's (1989) extension of Habermas's theories of social science describes three paradigms used in educational research: empirical-analytic, symbolic science, and critical science. Shannon noted that an empirical-analytic paradigm has dominated the research published in professional journals. His review also indicates that the empirical-analytic paradigm rests on the false assumptions that science, so conceived, is objective, unbiased, neutral, and apolitical. We know that science is not, nor ever has been, neutral (Popkewitz, 1984; Tierney, 1998). We also know that the scientific method or the process of science does not erase personal bias. In accord with this idea, Casti (1989) in *Paradigms Lost* has argued that, "the conventional ideology [of science] focuses entirely upon the *process* of science, leaving aside all consideration of the motives and needs of the scientists themselves" (p. 15, italics in the original). We would add to Casti's consideration of the motives and needs of scientists, the motives and needs of nations, the corporate state, and politicians.

We prefer not to pinpoint one paradigm as problematic, but to look more broadly at the notion of scientism. *Webster's Dictionary* (1984) defines *scientism* as "the belief that methods used in natural science should be applied to all fields of inquiry" (p. 1045). More than 50 years ago, sociologist Gunnar Myrdal observed:

> A handful of social and biological scientists over the last 50 years have gradually forced informed people to give up some of the more blatant of our biological errors. But there must be still other countless errors of the same sort that no living man can yet detect, because of the fog within which our type of Western culture envelops us. Cultural influences have set up the assumptions about the mind, the body, and the universe with which we begin; pose the questions we ask; influence the facts we seek; determine the interpretation we give these facts; and direct our reaction to these interpretations and conclusions. (quoted in Gould, 1998, p. 55)

The doctrine of this ideological position holds that through the scientific discovery of the laws regulating the universe and those applied to humankind, society can be perfected. Any attempt to explain scientifically the influence of a history of racial, economic, and gender oppression misses the mark. We believe that the application of natural science methods to social phenomena is problematic because it cannot account for these influences on the participants. Historically, however, in the United States race, class, gender, and language have been crucial to political acts made in the name of literacy, albeit in unproductive ways.

The field of reading research has begun to acknowledge and address more explicitly than in the past, (a) the social and cultural nature of literacy; (b) the

effects of race/ethnicity, class, and language in literacy learning; and (c) the effects of power relations as part of the realities of literacy classrooms in the U.S. Traditional epistemological and ideological schools of thought cannot address these issues in productive ways as they equate notions of universality and normalcy as white, male, and middle to upper class. Fortunately, during the last two decades there has been a tremendous growth in reading theory and research that includes racial/cultural/ethnic studies by scholars of color and by whites.

A curious result is that literacy researchers are more likely to acknowledge and quote the research of whites rather than people of color. For example, Spears-Bunton's (1990, 1992) work on reader response that examines racial and ethnic differences is frequently overlooked in the references about reader response theory. This is a real concern given that the prevailing school of thought perpetuates universality and normalcy, marginalizes the research of scholars of color, and ignores the fact that our growing population of school-aged children are children of color. What happens when reading researchers adopt positivistic and behaviorist methods, based on mythical notions of objectivity and false assumptions of neutrality, and apply them to all children in the U.S.? Notions of normativity rise, thereby revictimizing some children.

When will the U.S. cease to be "held hostage to the fear of losing white parents" (Fine, Sherman, & Anand, 1999) and begin to address the literacy of all students? Literacy learning and teaching has never been ideologically neutral or culturally unbiased. It has been a series of related political acts of ideological domination and conformity draped under a thin veil of paternalism. Through political acts, powerful elites have pressed others to adopt their points of view and disregard all others.

Future steps

Epistemological and ideological debates have gone unresolved during this century, and there is little doubt they will be resolved in the next millennium until stakeholders are willing to address the influence of their own beliefs, values, and motives in literacy research. The sociohistorical events of the past and present suggest that fundamental epistemological and ideological understandings must become part of the current political and intellectual discourse on literacy, or we are doomed to repeat the past. An ethical question to consider is how the current politicization of reading research and suggested ideological domination and conformity imposed by a powerful elite will affect the lives of all children in the U.S.

While political and academic spin doctors promote public disillusionment of reading research, thinly disguised as the reading wars, the real war wages on: the war over who will determine what the children of the next millennium will learn. Who will, and who should, decide what reading is, and is not? Literacy has been socially, culturally, and politically linked throughout U.S. history. It has been driven by the ideas, values, and purposes of those in positions of power.

A relatively new framework for the analysis of educational phenomenon, critical race theory, may offer some hope in addressing the effect of political, social, and racial issues in literacy research. Critical race theory emerged out of the field of law during the late 1980s as an alternative way of understanding the changes in political, legal, and social policies affecting people of color. Researchers began to look more closely at how concepts once thought to be supportive of socially just and democratic ideas (color blindness, formal legal equality, merit, integration), instead "reflected, created and perpetuated institutional racial power, ...the color-blind perspective represses and renders irrelevant the ways in which race shapes social relationships" (Roithmayer, 1999, p. 2).

As with most theories, critical race theory is not monolithic. There are many interpretations and variants of the theory. Two of the key elements of critical race theory are important considerations for literacy researchers, "racism is a normal part of life in America and the use of narratives to add contextual contours to the seeming 'objectivity' of positivistic perspectives" (Roithmayer, 1999, p. 11). Critical race theory is not a panacea, but it does offer a framework for understanding the role of politics, society, and race within education. As a framework it can offer the possibility of a more honest and open discourse about the effects of politics, society, and race in literacy research, practice, and assessment. Critical race theory also can help literacy researchers to understand the effect of normative views of research and practice like those being waged in the reading wars.

Within this context Gloria Ladson-Billings (1998) described how common notions of race act as a signifier and are represented in the concepts and language used every day by researchers. She listed word pictures and images that are perpetuated in the media and in education. For example she has observed how the misuse of words like "'school achievement,' 'middle classness,' 'maleness,' 'beauty,' 'intelligence,' and 'science' become normative categories of whiteness, while categories like 'gangs,' 'welfare recipients,' 'basketball players,' and 'the underclass' become the marginalized and de-legitimated categories of blackness" (p. 9). Further, she argued that

> The creation of these conceptual categories is not designed to reify a binary but rather to suggest how, in a racialized society where whiteness is positioned as normative, everyone is ranked in categories in relation to these points of opposition. These categories fundamentally

sculpt the extant terrain of possibilities even when other possibilities exist. (p. 9)

For example, the reading wars appear to be over the one best method of teaching beginning reading. Either camp presupposes that "instruction is conceived as a generic set of teaching skills that should work for all students. When these strategies or skills fail to achieve desired results, the students, not the techniques, are found to be lacking" (Ladson-Billings, 1998, p. 19). Clearly, alternative inclusive epistemologies and ideologies are needed to address the hegemonic traditions of the past and to prepare new traditions for the future. The new traditions must be inclusive and equitable if literacy learning, teaching, and research are to move forward.

What conditions are necessary for a new environment of literacy theory and practice? We have argued that true change will come about when literacy's body politic is willing to step forward to take action and resist the ideological domination and conformity that has plagued literacy research and practice. As a community of scholars we must resist the oppressive overtones of ideological domination that lack critical reflection of the multiple realities that are summarily dismissed under terms like biological and background experiences. Likewise, we must not lose sight of the tremendous growth in the field as it has embraced multiple philosophical and ideological perspectives. As the current political interventions and media coverage tend to marginalize cultural, linguistic, and economic differences within U.S. education, the turn of the century has become an ideal time to support the creation of more democratically just and equitable conditions within our research, classrooms, and realms of influence.

Literacy instruction

Reading performance has been a kind of barometer of school and individual success throughout the 20th century. Recently, U.S. Secretary of Education Riley (1999) suggested that "we have a new national focus on reading and we are hopeful that we have ended the reading wars" (http://www.ed.gov/Speeches/ 02-1999/990216.html). The national focus on reading and the reading wars, battles, and skirmishes are far from over. The reading wars appear to center on a number of myths about reading achievement. Jeff McQuillan's (1998) book *The Literacy Crisis: False Claims, Real Solutions* outlines what he believes are the seven most prevalent myths about reading achievement in the U.S. He listed the following myths: (a) reading achievement in the United States has declined in the past 25 years; (b) 40% of United States children can't read at a basic level; (c) 20% of our children are dyslexic; (d) children from the baby-boomer generation read better than students today; (e) students in the United States are among the worst readers in the world; (f) the number of good readers has been declining, while the number of poor readers has been increasing; and (g) California's test scores declined dramatically due to whole language instruction. McQuillan mounts an impressive argument that refutes each of these myths. He argued:

> There is considerable evidence that the amount and quality of students' access to reading materials is substantively related to the amount of reading they engage in, which in turn is the most important determinant of reading achievement.... Reading material is basic to all education, and providing a rich supply of reading matter to children of all ages, as well as a place and time to read, is the first step to bridging the gap between poor and good readers. (p. 86)

Most reading experts maintain that there is no one best method for teaching reading that works for all children. G. Reid Lyon (1997) of the National Institute of Child Health and Development (NICHD), summarizing his panel's research on reading, testified before Congress that "We have learned that no single method, approach, or philosophy for teaching reading is equally effective for all children.... The real question is which children need what, when, for how long, with what type of instruction, and in what type of setting" (pp. 10–12). There are ample data to suggest that there are myriad answers to these questions.

Lyon, at the direction of Congress, established a National Reading Panel (NRP) in 1998 to make sense out of the research findings and translate them to teachers and parents in a useful manner. Specifically, the charge from Congress states that the panel is to "assess the status of research-based knowledge (of reading development and disability), including the effectiveness of various approaches to teaching children to read" (http://www.nationalreadingpanel.org/documents/ProgressReport.htm). The charge is open-ended and allows for a wide discussion of a variety of research-based knowledge (without determining a singular method of research as superior to others) and clearly states that it wants a review of various reading instructional approaches.

On February 22, 1999, the NRP released a report describing its work to date. The report states that it is NRP's desire to review "scientifically sound information" (http://www.nationalreadingpanel.org/documents/ProgressReport.htm) to help improve reading performance. It describes the reading wars as a battle between two different types of beginning reading instruction, phonics and whole language. It is clear that NRP supports a phonics approach built on the commonly referenced Houston studies, of

which Foorman's (1995) study and that of Foorman, Francis, Fletcher, and Lynn (1997) are examples.

It is important not to lose sight of the ideology of scientism upon which these and like research-based reports are founded. The report outlines the 13 areas of reading research that members of NRP will review: (a) assessment instruments, (b) oral language, (c) home/preschool/school age influences, (d) writing instruction, (e) materials/texts in instruction, (f) vocabulary, (g) print awareness, (h) phonemic awareness/letters (i) phonics instruction, (j) oral reading/repeated reading, (k) reading practice effects in fluency, (l) knowledge base for reading standards in teacher education, and (m) strategies (http://www.nationalreadingpanel.org/documents/ProgressReport.htm, 1999, np). The list suggests that there are diminished concerns about reviewing the research on the effects of cultural/ethnic influences and students with limited English proficiency. Moreover, the report describes the type of research they will consider:

> The highest standard of evidence for such a claim is the experimental study, in which it is proved that treatment can make such changes and affect such outcomes. Sometimes when it is not feasible to do a genuine experiment, a quasi-experimental study is done. This type of study provides a standard of evidence that, while not as high, is acceptable to many investigators. To sustain a claim it is necessary that there be experimental or quasi-experimental studies of sufficient size or number, and scope (in terms of population served), and these studies be of moderate to high quality. (http://www.nationalreadingpanel.org/documents/ProgessReport.htm)

Additionally, the report suggests that early intervention is an important goal for reading research and implies that there are significant societal gains that can come from early reading success. For example, the NRP report cites information published by the National Right to Read Foundation outlining the societal costs of illiteracy: (a) 85% of delinquent children and 75% of adult prison inmates are illiterate; (b) 90 million adults in the U.S. are, at best, functionally literate; (c) the cost to taxpayers of adult illiteracy is US$224 billion a year in welfare payments, crime, job incompetence, lost taxes, and remedial education; and, (d) U.S. companies lose nearly US$40 billion annually because of illiteracy.

The chicken-egg logic here is that if you teach a child to read he or she will be less of a strain on society because he or she will be less likely to be on welfare, commit a crime, skip work, fail to pay taxes, and need remedial education. Of course, there are many people who are readers who are on welfare, commit crimes, skip work, fail to pay taxes, and need remedial education. It points to the galactic distance between the lived realities of some children and those who are making decisions regarding the literacy learning and teaching for all children.

Further, this magic bullet mentality ignores the historical, social, and economic reasons that daily affect the lives of many illiterate people. Learning to read, while an important skill, cannot and will not erase these effects nor will it erase the "selective traditions" (Luke, 1998, p. 306) that support the status quo. The ideological domination and conformity that is currently driving many of the political initiatives effectively serves to revictimize the most needy children it claims to be trying to help. It relinquishes the responsibility and accountability of literacy proponents to acknowledge the sociohistoric barriers of literacy's past. Moreover, the current disregard for the cultural politics of literacy research, which is being used to maintain an illusion of an equal educational system, has failed to suggest the importance of creating more culturally responsive, inclusive, and transformative literacy learning and teaching spaces.

Future steps

In the next century, we would like to see federal research dollars spent on research conducted, normed, and interpreted in research sites where the children are most needy. In addition, we would like to see best practices found in these areas promoted and advertised as practical solutions along with a wide range of research-based studies and programs.

The most needy children, a phrase used often in the rhetoric of reading reform, refers to the poor readers, who as research indicates are most likely to be children who live in poverty (inner urban or rural), children of color, or children with limited English proficiency. However, seldom are these children the focal group of research-based studies of literacy, though the findings are often extended to them in what Maria de la Luz Reyes (1992) calls the "one size fits all myth" (p. 431) or what Susan Ohanian (1999) calls the "one size fits few" (p. 5). There is a stunning disparity between the rhetoric of reading reform and the literacy research about these most needy children. What is even more disconcerting is that the schools, classroom teachers, and students in these high-poverty areas are held accountable for not performing up to the same standards or producing the same results when using the same research-based and scientifically proven reading instruction established with white suburban students. In addition, the schools, teachers, and students in high-poverty areas and in schools with large numbers of students of color and students with limited English proficiency are held accountable for not performing as well on standardized reading tests that, like most research-based studies, were conducted in white, English-speaking, middle class schools. Which reading

approach best builds upon what these children already know about reading the word and world? Which standardized reading test reflects what these children know? Have we created the learned helplessness and the at-risk status of some children (Fine, Sherman, & Anand, 1999) by devaluing and ignoring what they bring to literacy as important and worthy? Have we sent these children and their parents the message that who they are and what they know is not important enough to incorporate into our praxis?

In short, literacy research must begin to address the causes of the failure of these children and not continue to treat the symptoms of failure. Changing literacy instruction, especially changes that are based on ideological conformity, does not address the root problems of literacy learning. Literacy research and practice that works well among white suburban children will not necessarily translate into working well with other children. Victimizing the children for what they look like, who they are, where they live, how much money their parents or guardians earn, or what language they speak does not address the problem either. Attempts to assimilate non-white, non-middle class, limited-English-proficient children into the *common culture* of schools in the U.S. also has fallen short of its goals.

Let's consider another approach, accepting the children, their culture, their language, and their ways of knowing into the literacy classroom. Let's build upon how they make meaning of the world, their language, and their literacy. We already know that few teachers have completed antiracism/diversity/multiculturalism training (NCES, 1999) necessary to begin to transform literacy learning and teaching. Let's support teacher training programs that will help to inform teachers how to create more culturally responsive literacy lessons. While it is not possible to legislate attitudes, let's create licensures that require antiracism/diversity/multicultural training.

Literacy materials

A frequent refrain among politicians, teachers, librarians, and parents who wish to improve reading performance is "as long as they are reading something." Literacy materials created for children often elicit the same type of acrimonious debates associated with literacy instruction. Themes, content, or values that were sources of conflict in previous decades or centuries resurface periodically. Consider a simple theme: children are a part of families found in many picture books in one form or fashion. Family structure will vary—nuclear, blended, extended, and so on. Consequently, the potential for controversy increases if books shared with children contain single parent, gay or lesbian, or poor families.

Other examples exist. The penny dreadfuls of another era, pulp fiction that appealed to readers' need for entertainment, have a contemporary counterpart in series books such as the Goosebumps series. The moralism of 19th-century books written by women novelists, for example, *Hans Brinker or the Silver Skates* (Dodge, 1894), are reincarnated today in the volumes compiled by William J. Bennett such as *The Book of Virtues: A Treasury of Great Moral Stories* (1993), *Our Sacred Honor: Words of Advice From the Founders in Stories, Letters, Poems, and Speeches* (1997), and *Our Country's Founders: A Book of Advice for Young People* (1998). Add multiculturalism to this mix and the proverbial pot explodes rather than boils over.

Stotsky (1998) gained notoriety with her argument that the inclusion of multicultural literary works in language arts texts was a central factor in declining reading scores at the elementary level. She follows an established tradition mined by her predecessors (Bennett, 1993; Bloom, 1994; Bork, 1997) who claim that the ongoing culture wars signify the decline in meritocracy and the triumph of mediocrity and decadence. Pronouncements of this sort capture attention and mask the need for thoughtful discussion about equally compelling matters.

Among the topics shoved into the background include the change in ownership among major publishing houses and the corresponding effects on who and what gets published, where books are sold, and the constituencies who determine children's access to reading materials. Most often, these assessments are found within the pages of *Publishers Weekly* and other trade journals. The scholarship of critical theorists—for instance—bell hooks (1992) or Joel Taxel (1997)—and the critiques of literacy researchers—for instance, Kenneth Goodman (1988) or Rudine Sims Bishop (1996)—address these important matters. The seemingly unfettered discussions found on listservs add another forum for conversations about materials.

Older metaphors and imagery associated with tradebook publishers, upper class, Eastern, intellectual elites, male and female, apply less often. Marcus's (1998) *Dear Genius*, a collection of letters written by Ursula Nordstrom, a grand dame of children's book publishing, remind readers of a bygone era when books were literary works and not products of entertainment conglomerates. Similarly, a single educational researcher or small coterie of researchers—William S. Gray, for example—symbolized a company's reading series. As with tradebooks, basal publishers are part of multinational corporations and employ large authoring teams. The teams are composed of literacy researchers, classroom teachers, consultants, and in-house editors.

The shift from an elite cottage industry to a multinational corporation accelerated in the 1980s with the emergence of flamboyant media moguls such as Rupert Murdoch and Robert Maxwell. They purchased publishing companies (HarperCollins by Murdoch and Macmillan by Maxwell) along with entertainment companies such as newspapers and magazines, television and radio stations, and sports teams and arenas. Merger mania, presaged by Murdoch and Maxwell, continues to affect the publishing world. Several actions resulted in fundamental changes that should have generational effects. European publishing companies acquired control of a substantial portion of U.S. book publishing (Baker, 1998). For example, Bertelsmann, a German company, acquired Random House, the "largest trade publisher in the English-speaking world with sales of about $1.8 billion" (p. 13). Among the imprints included in the purchase were Bantam Doubleday Dell. Concern was expressed among writers, booksellers, editors, and agents about the potential decrease in choices available to readers.

It would not be far-fetched to suggest that the concern expressed earlier about Bertelsmann's purchase reached panic levels with the proposed acquisition of Ingram, a major book distributor, by Barnes and Noble, the powerful booksellers. Barnes and Noble, it would seem, gained the power to crush independent booksellers and smaller conglomerates by controlling their access to books. The spectacular nature of these purchases perhaps lessened the impact of other profound changes in publishing such as Pearson's purchase of Addison Wesley Longman or smaller buys such as Harcourt Brace's ownership of computer science publishing company Morgan Kaufman (Milliot, 1998). The concentration of U.S. book publishing in fewer and fewer hands gives credence to the views of independent booksellers who fear for their survival and warn of restrictions on readers and creators.

Undoubtedly, these reconfigurations of publishing companies and distributors will have profound effects on the types of materials produced by tradebook and textbook publishers. One effect is a reduction in the number of books published. For example, mergers affecting Macmillan in the early 1990s resulted in a significant decrease in new tradebooks published from 800 plus to a little over 600 (Milliot, 1998). Another likely effect is that publishers will prefer safe books that allow for tie-ins with television and movies, consumer products such as toys, and special promotions with fast food outlets. For instance, the Dear America, Goosebumps, and Baby-sitters Club series are available on television as well. Most alarming, some editors may be less willing to take chances on unknown authors or those who fail to garner blockbuster sales.

Unintended effects are likely to emerge as well. For example, many independent booksellers refused to concede defeat to Barnes and Noble. Petitions circulated on listservs for consumer actions resulting in selective buying; lists of independent booksellers located throughout the U.S. were circulated as well. A few lawsuits challenging the mergers have been filed; for instance, a group of African American booksellers charged that preferences were accorded larger booksellers in terms of discounts and return policies (Milliot, 1999). Unquestionably, a handful of publishers dominate the market for literacy materials.

Future steps

The future looms ominously ahead as we are beginning to witness how basal readers, a special case in publishing, symbolize many of the economic, artistic, cultural, philosophical, and pedagogical issues in literacy education. Mergers and acquisitions resulted in some unexpected partnerships and consolidations that mirror the changes occurring in other industries such as automobile manufacturing (e.g., Chrysler's purchase of Mercedes Benz). A parallel merger is found in Pearson Publishing's ownership of Silver Burdett Ginn and ScottForesman. Scholastic Publishing Company signaled its intention to contest the dominance of other publishing companies with the development of *Literacy Place.* (http://scholastic.com/literacyplace)

Further, many of these companies own tradebook publishers, which allowed for synergistic relationships to emerge. For instance, basal publishers responded to requests for more and better literature selections with the creation of literature anthologies in the early 1990s (Hoffman, 1998). Permissions for text and illustrations are quite expensive. A basal publisher could decrease the costs of permissions if literature selections were drawn from its tradebook divisions. However, launching a new series remains an expensive proposition, one that costs approximately US$50 million. Such exorbitant costs are mitigated by the huge profit potentials, US$500 million plus, especially if a series is adopted in several key states.

The aesthetic merit of basal readers evokes consternation as well. Goodman (1988), in an article published in *The New Advocate*, identified what he labeled as the "basalization of children's literature" (p. 29). In a later article, Goodman et al. (1994) conceded that the quality of literature had improved but bemoaned the phonics, vocabulary, and comprehension lessons accompanying it.

Shannon and Goodman (1991) critiqued basals as an educational and economic product that conveyed specific ideological perspectives, deskilled teachers, and prevented the development of critical literacy. The report on the basal (Goodman, Shannon, Freeman, & Murphy,

1988) provided extensive discussions detailing why basals were significantly responsible for the current state of literacy instruction and curricula. Further, they argued that economic, political, and cultural institutionalization of basal readers are primary causes for the inability of alternative pedagogies—for example, literature-based instruction—to gain a foothold among teachers.

Undoubtedly, some alternative pedagogies gained support. For example, the little books associated with Reading Recovery in Australia and New Zealand have counterparts in the U.S. The various groups under the whole language umbrella are testament to the power of grass-roots organizations to effect educational change. However, some caution is warranted. The disappearance of basal readers and the wholesale adoption of alternative pedagogies would not result in every child becoming literate and a movement towards notions of critical literacy. Other factors, such as the inclusion of the child's culture or language in schooling, the class and race of the child, the teacher's philosophical stance, and the teacher's perceptions of the child, ensure the continuation of literacy difficulties.

Crucial questions about reading literacy materials remain. How do teachers come to understand the process by which certain literature is canonized and other types are relegated to the fringes of literacy curricula? What teaching strategies would ensure that texts written by people of color are not deracinated in book discussions? When should teachers come to understand how some cultural experiences are privileged and others are not despite progressive pedagogies such as process writing (Willis, 1995)? The kind of transformations suggested by these questions are not dependent on the type of text used. Radical transformations can begin with small steps and some are evident.

Literacy assessment

The current literacy goals outlined by the federal government for the next millennium are similar to those held by several states: reading by Grade 3, reading by age 9, or reading on grade level. It is believed that if students meet these goals they will be able to pass standardized tests, be promoted from grade to grade, pass high school exit exams, and lead a fulfilling life free from poverty and crime. A close look at the location of literacy research sites indicates that very little research is being conducted in economically distressed areas or among children of color in major U.S. school districts such as Atlanta, Baltimore, Boston, Broward County (Florida), Buffalo, Chicago, Dallas, the District of Columbia, El Paso, Fresno, Minneapolis, New York City, and Tuscon, among others.

In numerous books and articles about children living in poverty it is suggested that reading is the key to their survival and crucial in avoiding gangs, crime, and drugs. For example, articles in newspapers like *The Los Angeles Times* have featured juvenile offenders who have reading difficulties and the penal program that requires them to complete academic exit requirements (Colvin, 1998). An article by Riccardi (1999) describes efforts to teach juvenile offenders basic literacy skills "in the hope that it will help them avoid a return to the justice system" (p. B2). Clearly, the article implies that being a reader and becoming a good student will lead to a productive life and cost society less. This is the rhetoric the middle class wants to hear, and it feeds the political acts of those in positions of power to move forward. However, the children who live in poverty, as well as their parents or guardians and teachers, are competent readers of their world and know that learning to read will not ensure a more equitable or socially just world. They are not swayed by the spin doctors' myths that literacy learning will bring equality; they understand that greater systemic changes are needed in society and education.

It is important here, however, not to talk about children who live in poverty areas in inhumane and detached ways as if they were only statistics. The media image of these children focuses on the poor, urban, limited-English-speaking, male child of color. *The Los Angeles Times*, in its commitment and support of helping all children read by age 9, has published several articles about children who have limited reading abilities. One article in particular features Ruben, a 9-year-old male, who is struggling to learn to read in English, and his parents who are willing but unable to help him. The reporter visited Ruben's home and took great care in describing the poverty in which Ruben lives (Sahagun, 1998). He included several pictures that showed Ruben engaged in various literacy activities at home and at school. The reporter also explained how Ruben's parents struggle daily to feed, clothe, and provide for their six sons. The article noted that Ruben's parents are Mexican immigrants who want their children to succeed in school. Ruben must depend on school support staff and an older brother at home to help him with his reading difficulties. Ruben, his parents and brother, and the school are all trying hard to help Ruben become a reader.

Freire (1998) wrote poignantly of this phenomenon: "If we have faith in men [and women], we cannot be content with saying they are human persons while doing nothing concrete so that they may exist as such" (p. 518). Perceptively, literacy researcher and scholar Kris Gutierrez's (1999) article in *The Los Angeles Times* points out the deception of using one set of skills for different

language learners. How will more standardized tests in English improve Ruben's literacy performance?

While the results of the most recent NAEP reading tests (1998) show that overall reading performance is improving for children in the United States, it also indicates that children who are poor and live in the inner city continue to score lower than other children. But, it is hard to detect these gaps in research theory and practice when looking at the most current data available. In response to the 1998 NAEP data, U.S. Secretary of Education Richard W. Riley (1999) stated that, "new data [tell] us that our nation's reading scores are up for the first time in all three grade levels—4th, 8th, and 12th.... But 38% of our 4th graders are struggling to learn this very first basic.... We have a stubborn achievement gap between the well-off and the poor. This is a hard, cold reality; too many of our schools are failing some of our children and some of them shouldn't be called schools at all." (http://www.ed.gov/Speeches/02-1999/990216.html)

The 1998 results of NAEP testing include:

- Average reading scores increased for students in Grades 4, 8, and 12. At the fourth and twelfth grades, the average score was higher in 1998 than in 1994. At the eighth grade, the national score was higher in 1998 than in 1994 and in 1992.
- While the national average reading score increased at all three grades in 1998, increased scores were not observed for all students.
- Across the three grades (4, 8, and 12) the percentage of students performing at or above the *Basic* level of reading achievement were 62, 74, and 77%; the percentages who performed at or above the *Proficient* level were 31, 33, and 40%; and the percentages who performed at the highest achievement level, *Advanced*, were 7, 3, and 6% (italics in the original).

In addition, NAEP data reveal that at all three grades levels in 1998 the average reading score for white students was higher than that for black, Hispanic, and Native American students. At Grade 4, the only significant increase among racial/ethnic groups was observed for black students, whose average reading score in 1998 was higher than in 1994. At Grade 8, increases were evident for both white and black students; their average scores in 1998 were higher than in 1994 and in 1992. At Grade 12, increases were evident for both white and Hispanic students since 1994. (http://www.ed.gov/Speeches/02-1999/990216.html)

Early press releases did not include information for Asian Pacific Islander children. The 1998 NAEP data do not make clear the disproportionate numbers of children of color who are tested from inner-city schools as compared to the number of white children who attend suburban schools, although historically students from suburban areas fare better on standardized tests. Nor do the data clearly describe who was excluded from testing. Notably, since our original draft, Pascal D. Forgione, Jr., Commissioner of Education Statistics at the National Center for Education Statistics (NCES), issued a report on May 14, 1999, regarding the NAEP state reading scores and exclusion rates. He stated that:

> Phase I of the NCES analysis regarding the relationship between change in exclusion rates of students with special needs [i.e., students with disabilities (SD) and limited English proficient (LEP) students] and the possible impact on performance reported in the 1998 National Assessment of Educational Progress (NAEP) Reading Assessment.... we have studied the pattern of change in exclusion rates; the contributions of SD and LEP students to these changes; the statistical relationship between these changes and gains in reading scores; and the statistical relationship between the inclusion rates for students tested with and without accommodations. In short, there appears to be concern over the possible inflation of increases in state reading performance scores due to the exclusion of these groups of children from the population in ways that differed from their exclusion in previous years. (http://nces.ed.gov/Pressrelease/naep599.html)

It is important to note that all children in the United States continue to be assessed on standardized reading tests based on an ideology of scientism. Reading tests have not changed significantly in the past 80 years with the exception of recent additions of constructed responses. Farr and Cary (1986) observed that:

> There have been numerous advances in statistical areas of validity and reliability. The invention, development, and extensive use of test scoring machines and computer summaries of test information have radically changed the speed with which test results are returned to schools and teachers. However, the tests themselves look very similar to those developed in the 1920s. The use of short passages followed by multiple choice questions is still the predominant format for assessing reading comprehension. The word recognition tests used on both norm and criterion referenced tests have not changed in any significant way. (pp. 204–205)

When standardized tests require the one-correct-answer format, they effectively deprivilege the reflective, authentic, and creative response for the unreflective, inauthentic, expected response. Standardized literacy testing, whether required, suggested, or voluntary, thus legitimizes and promotes a select set of ideological assumptions, beliefs, and values. In the U.S., most standardized literacy tests are constructed from a narrow positivistic and biological deterministic position that devalues race, class, and gender (Shannon, 1998; Willis, in press). This particular point

of view does not acknowledge or address sociohistorical issues and their effects on literacy. Given the social nature of reading, and given the multiple realities of students, why is it presumed that there is only one correct answer?

Politically, we can foresee what will become of the increased used of standardized reading tests that call for one correct answer. U.S. Public Law 105.78, signed November 13, 1997, by President Clinton authorizes the National Assessment Governing Board (NAGB) to construct a voluntary national test (VNT). This first-ever national voluntary test includes fourth-grade reading and eighth-grade math assessments. Specifically, NAGB was charged with the oversight of test development to include

> The extent to which test items selected for use on the tests are free from racial, cultural, and gender bias; whether the test development process and test items adequately assess student reading and mathematics comprehension in the form most likely to yield accurate information regarding student achievement in reading and mathematics; whether the test development process and test items take into account the needs of disadvantaged, limited English proficient and disabled students; and whether the test development process takes into account how parents, guardians, and students will appropriately be informed about the testing content, purposes, and uses. (http://www.nagb.org)

The creation of the VNT is a political act that supports the ideology of the power elite and supports a legal structure of domination and conformity intimately tied to standardized testing. The plan for the forthcoming VNT is to extend and build upon the reading framework of NAEP by creating a test that is text based. The test passages will include several different genres: short stories, essays, biographies, autobiographies, magazine articles, encyclopedia entries. Sample test items are available for review on NAGB's Web site. The current plan is to produce two 45-minute sessions consisting of several multiple-choice and constructed-response items. It has been suggested that multiple-choice items will compose 80% of the test items. The remainder of the items will be SCR (short constructed responses) and ECR (extended constructed responses).

One must be careful in reading the language of the volunteer national tests, specifically the call for *text-based* responses. This clever use of language implies that the answers are culturally free and objective because the tests require students to draw their responses from the text; this idea presupposes that the text itself is culturally and linguistically neutral and the expected response is common.

One example of a state-level fourth-grade sample test item, built upon the NAEP framework, uses an excerpt from *Charlotte's Web* (White, 1974). Although it is an engaging story, which children—inner city or suburban, English or non-English speaking, white or non-white—are most likely to have read and become familiar with this book? Will the selection of this text advantage some and disadvantage others? Equally important to ask is this: Which children see themselves in this text and identify with the characters, plot, or themes? How culturally and linguistically neutral is *Charlotte's Web*? What responses are expected and how will they reflect cultural neutrality? Why was this text selected? What alternatives were dismissed? Why?

Fifteen large urban school systems, including New York City, Los Angeles, and Chicago, have agreed to participate in voluntary national testing. Given the historic results of standardized testing in these geographic areas among children of color, children of poverty, and children who possess limited English, what insights will be gained? Will the literacy research by scholars of color—for example, Geneva Smitherman's (1994) review of NAEP data—become a part of the discourse on understanding constructed responses, or will it continue to be ignored? Will schools systems, administrators, and teachers really be held accountable for the low performance of children on the new national tests (which are really recreated old tests), or will the students, their economic status, their language, and their race or culture be found wanting? The effects of increased governmental intervention into classroom practices and curriculum, standardized testing, and the ties to federal funding may very well affect all of America's children (Dressman, 1999).

The recent political act by U.S. District Judge Ronald Buckwalter barring the college athletics governing board, the National Collegiate Athletic Association (NCAA), from using minimum standardized test scores as an eligibility requirement for freshmen athletes may become the wave of the future. Judge Buckwalter's ruling did not limit the use of standardized tests, but it does call into question the epistemological and ideological foundations of the tests. It is a political act that may open the door for others to challenge cultural and racial biases within standardized tests (including literacy tests), and their use as gatekeeping mechanisms. Strangely, as of the writing of this article, no one has stepped forward to counter his claim of cultural and racial biases within the tests.

Finally, there has been a rash of protests by parents and school children to high-stakes testing (Pendelton, 1999). Several students, mostly high school children, are refusing to participate in required high-stakes testing. A group of students at one of Chicago's premier magnet high schools, Whitney Young High School, refused to take the standardized state tests. In a letter of protest, this group of young, but experienced test takers convincingly made their concerns clear. They wrote:

An inordinate amount of time is also consumed in the preparation teachers are forced to give before each test. All this time could be spent giving us a real education instead of teaching us how to take multiple-choice tests.... Most of these tests measure very narrow types of learning; there is a definite skill to answering multiple-choice questions that is independent of any useful education, and even the essays are very specifically formatted to see how well we can regurgitate the five-paragraph format drilled into our heads since grammar school.... You, the administration and the school board, are telling us that these are the skills we should be pursuing. Free thought and originality seem to have no place in the tests that you so proudly parade as proof.... We ask that time and energy spent on standardized testing be reduced to the minimum possible.... The school and the school system should show its academic superiority through the quality of its education and the accomplishments of its students rather than the numbers on its test scores. (Tanzman et al., 1999, p. 27)

Other students and parents and guardians throughout the nation from Massachusetts to California have joined to fight the overuse and misuse of standardized testing in what one young woman called an "act of civil disobedience" (Pendelton, 1999, p. 4). These parents and children are part of a growing grass-roots movement that, though long silent about their concerns of the overuse of standardized tests, are now voicing their opposition. They are fearful that they may be forced to adopt ways of knowing and mechanical responses to literacy to do well on tests, instead of thinking critically, creatively, and imaginatively.

Future steps

New forms of literacy assessment will need to be created from alternative epistemological and ideological schools of thought that do not attempt to maintain the status quo, but offer equitable opportunities for all students. Literacy assessment must be preceded by culturally responsive teaching that respects the multiple cultures and languages brought to the literacy classroom. Carol Lee's notion of cultural modeling offers one example of culturally responsive instruction that could be adopted more broadly. Lee defined cultural modeling as "designing methods to model concepts in ways that draw upon forms of cultural knowledge that students from culturally diverse and at-risk environments have constructed intuitively from their home and community lives." (http://www.ls.sep.nwu.edu/lee/) Literacy assessment should be produced by teams of literacy experts that are representative of the cultural and linguistic diversity within schools. Literacy assessments in the future will need to include literature that embraces the variety of cultures that are a part of society in the U.S. The use of a broad range of literature also means that a range of acceptable responses that are culturally and linguistically responsive need to be generated. The literature as well as the assessments should be culturally responsive and respectful. Constructed responses appear to offer an alternative to the overuse of one correct answer in standardized testing instruments. However, they too can be standardized to look for one particular type of answer. Current calls for text-based answers do not respect the background knowledge that all students bring to reading. Thus, a range of possible answers to constructed responses needs to be available, especially responses that reflect cultural and linguistic nonmainstream patterns and thinking. Technology could be very useful in helping to catalogue possible answers. In addition, several different sources of assessment should be used when determining a child's level of performance.

There are forms of assessment that can be used that do not victimize learners for who they are and what they bring to the literacy classroom. These assessment forms include miscue analysis, performance-based assessments, and portfolios. Collectively, they offer types of assessment that build upon what students know and how they use what they know. Interestingly, proponents of these forms of assessment clearly address their strengths and weaknesses (see Pearson, DeStefano, & Garcia, 1998; Tierney, 1998). This reflective trend among proponents of varying forms of assessment is a healthy shift away from magic bullet claims.

Closing remarks

The paths of literacy and politics continue to be inextricably interwoven as we enter the 21st century. Their intersections have become part of the national conversation among literacy experts, researchers, politicians, school administrators, teachers, and parents. In this article we sought to highlight some of the more contentious areas; however, we are aware that we have left several unaddressed. The politics of literacy are shifting so rapidly that much of what is said today is history before it is published. We believe that as a nation we will continue to see acts of civil disobedience as parents and guardians, teachers, and students resist the political acts of powerful elites toward ideological domination and conformity.

Some of the unaddressed hot button areas include (a) the elimination of bilingual programs; (b) guidelines for state, district, school, and classroom literacy instruction; (c) state- and district-required assessments; and (d) unequal access to technology for literacy learning and teaching. As politically challenging as these areas appear, most are not unfamiliar territory, as they have surfaced at other points in our history. However, the responses by politicians and literacy experts have remained unchanged

and continue to reproduce the same results among students in the U.S. In the 21st century we envision a future in which politicians and literacy experts will promote socially just and equitable opportunities for all literacy learners.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

"What's my name?": A politics of literacy in the latter half of the 20th century in America

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One of my most vivid memories of youth is a championship boxing match between Muhammad Ali and Ernie Terrell that my father and I watched one Saturday afternoon on the *Wide World of Sports*. It was early in Ali's championship years, before he refused to fight in the Vietnam War but after he had knocked out Sonny Liston. Terrell was enormous, skilled, and brave enough to have taunted Ali before the fight by refusing to call him by his new Muslim name. Terrell referred to his opponent as Cassius Clay—Ali's given name, but one he now associated with slavery. As I remember, it was only a short time before Ali began to pummel Terrell. He wouldn't knock Terrell out though, and my father dismissed Ali as "a light puncher"—thinking he couldn't finish Terrell off. It was clear, however, that Ali was keeping Terrell on his feet with punches as he repeatedly asked Terrell, "What's my name?" And in retrospect it wasn't just Terrell who was being asked forcefully to recognize Ali's new name. Rather it was my father, me, and all of America being told to acknowledge that the old order was being challenged by new sets of ideas, goals, and people.

Ali's performance presented clearly his sociological imagination. That term, coined by C. Wright Mills (1959), suggests an ability to create possible reconstructions of larger social forces that affect our lives. Ali's efforts to reclaim the power to name oneself and the world indicate that this practice is not just for sociologists. Rather, anyone might employ sociological imagination in order to explore problems that beset her or him. Then it was a bout between two men in which each attempted to beat the other senseless and both employed psychology to upset the other; now the match seems more a metaphoric struggle between two publics. One demanded that the other recognize its existence in the world. Within the context of sociological imagination, the controversy over Ali's name was no longer a personal problem but rather a public struggle over recognition. Sociological imagination seemed a remarkable catalyst for social change:

> Without this sociological skill, people are left with the belief that the troubles in their lives are their own doing or perhaps, the result of some abstract fate; but in either case, they feel that these are matters with respect to which they should, and do, feel guilty. The sociological imagination refers to the ability of some to learn—often with good luck or coaching or perhaps formal schooling—to realize that, just as often, one's personal troubles are in fact public issues. (Lemert, 1998, p. 12)

My contention in this essay is that much of our discussion about literacy and literacy education in the United States during my lifetime has been a reaction to many groups' uses of their separate and collective sociological imaginations in efforts to be recognized (see Takaki, 1993). Ali's shouts of "what's my name" were echoed through various means by many groups. They asked and sometimes demanded to be acknowledged as being present, as being capable makers of culture, and as being worthy of respect. Ali was and is admired worldwide not only for his pugilistic skills, but more for his ability to make these struggles for recognition visible to all. These struggles pushed across cultural and social fields in the United States, pressing upon traditional

institutional structures, behavioral patterns, values, and social theories, and caused all to respond to difference. Schooling, being one of the few public spaces left in the U.S., became a primary site for these struggles as marginalized groups asked school officials and educators metaphorically, "What's my name?"

In what follows, I attempt to lay out parameters of some American struggles for recognition. My efforts are meant to be illustrative rather than complete on this matter. My interests lie in an investigation of the ways in which literacy and literacy education during the second half of the 20th century can be understood as a direct (but not always conscious, perhaps) reaction to these struggles for recognition. Dialect, the canon, cognitive abilities, access, language, standards—all these issues are at least associated with struggles for recognition. Whether dragging their feet, running in circles, or offering a helping hand, literacy researchers' and educators' efforts to address these struggles constitute one way to discuss a politics of literacy in the 20th century and to think about that politics in the future.

In order to understand these issues, we must look behind the rhetoric that surrounds them to the political interests that drive them and that create opportunities for coalitions that promote or oppose them. Behind the rhetoric lies the agency of individuals and groups both past and present. Members of marginalized groups who participated and participate in the struggles for recognition, those who sought and seek to translate general concerns into educational matters, citizens who opposed and oppose that recognition and translation, legislators and educators who worked and work to impair or facilitate either or both, all provide the history on which the politics of literacy in the next millennium will be constructed. All acted or act according to explicit and implicit values about and visions of the social world they hope to inhabit, attempting ultimately to make their own history. But as Marx (1852/1963) wrote: "Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly found, given, and transmitted from the past" (p. 15). If we intend to speak of the future, then we must examine those circumstances of the past and present.

My attempt to characterize these circumstances is organized around a reminder of several voices of struggle in the U.S. during the last 50 years and an overview of five politically motivated reactions to those voices, complete with their corresponding visions of who and what should be authorized in school literacy programs. As historical conditions change toward the turn of the 20th century, the gap widens between rich and poor, and struggles of redistribution become visible again in and out of the United States, a new politics of literacy may be needed. I close with a discussion of how some literacy researchers are looking in that direction.

Struggles for recognition

Shortly after World War II, decades, even centuries, of political struggles came to fruition around the world (Landes, 1998). First in India and Africa, and then across Asia and South and Latin Americas, the Caribbean, and even the southern United States, colonized groups successfully challenged the established European ordering of the world. In various ways, these challenges upset the world's cultural as well as political hierarchies, asserting that different explanations of the order of one's world were not necessarily inferior to Western arrangements. Rather they were just different and worthy of recognition and authority in their own right. With each success, the particular culture of the indigenous people was rushed into public view and celebrated by some or condemned by others as a different way of knowing and understanding life. In the wake of these challenges came the unmasking of the European idea that the social world is a discoverable whole with a single best logic and set of values (Lemert, 1996). Efforts to assert the right to be different resonated loudly within cultural as well as political arenas of American life.

Various strands of the civil rights movement of the 1950s and 1960s display how international ideas were used to express the need for formal recognition of people of color (Omi & Winant, 1986). First, Mohandas Gandhi's nonviolent methods framed many of the actions of the Southern Christian Leadership Council after the *Brown v. the Board of Education* decision in 1954, as well as the thoughts in the founding statement for the Students Nonviolent Coordinating Committee (SNCC) written in May 1960·

> Through nonviolence, courage displaces fear. Love transcends hate. Acceptance dissipates prejudice; hope ends despair. Faith reconciles doubt. Peace dominates war. Mutual regards cancel enmity. Justice for all overthrows injustice. The redemptive community supersedes immoral social systems. (*SNCC Founding Statement*, as quoted in Albert & Albert, 1984, p. 113)

By the mid-1960s these thoughts gave way in some circles to more forceful rhetoric. SNCC leaders mixed Frantz Fanon's (1961) discussions of the lingering psychological effects of colonization with W.E.B. DuBois's (1903) concerns for double consciousness and Marcus Garvey's (1924) black nationalism to theorize a need for *black power* to be understood in both black and white communities:

> Racism has functioned as a type of white nationalism when dealing with black people.... Who are black people, what are black people, what is their relationship to America and the world?... It must be repeated that the whole myth of "Negro citizenship" perpetuated by the white elite, has confused the thinking of radical and progressive blacks and whites in this country. The broad masses of black people react to American society in the same manner as colonial peoples react to the West in Africa and Latin America, and had the same relationship, that of the colonized toward the colonizer. (*The SNCC Speaks For Itself*, as quoted in Albert & Albert, 1984, p. 125)

In October 1966, the Black Panther Party paraphrased Ho Chi Minh's use of the American Declaration of Independence in his writing about an independent Vietnam (see Minh, 1970) to announce the rights of revolutionary parties suffering under unjust neo-colonial authority to resort to armed resistance in their political platform:

> Prudence, indeed, will dictate that government long established should not be changed for light or transient causes; and accordingly all experience has shown, that mankind are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. (*The Black Panther Party Platform*, as quoted in Albert & Albert, 1984, p. 164)

The parallel, sometimes competing, variety of international influences speaks to the diversity within the African American movement for civil rights (Williams, 1997). Although the tactics differ markedly, the targets of each approach seem the same. The resolve of the SNCC turned quickly into the militancy of the Black Panthers, but the goal for all was finding an end to apartheid and racism in the U.S. through the naming and deconstruction of the institutional and cultural ways in which white dominance was and is maintained.

Racism and cultural domination were the targets of other marginalized groups as well. Some white college students were influenced by the Students for a Democratic Society's negotiated Port Huron Statement in 1962 (Flacks, 1988; Hayden, 1988):

> We are people of this generation, bred in at least modest comfort, housed now in universities, looking uncomfortably to the world we inherit.... When we were kids the United States was the wealthiest and strongest country in the world; the only one with the atom bomb, the least scarred by modern war, an initiator of the United Nations that we thought would distribute Western influence through the world. Freedom and equality for each individual, government of, by, and for the people—these American values we found good, principles by which we could live as men. Many of us began maturing in complacency.... As we grew, however, our comfort was penetrated by events too troubling to dismiss. (As quoted in Albert & Albert, 1984, p. 176)

Among the events too troubling to dismiss were racial injustice, the build-up of the military-industrial complex, and the systematic attempts to bring numbing conformity through education. During the 1960s, women's issues were often left unnamed in the literature of struggles for recognition (Evans, 1980). According to Brown (1993) and Swerdlow (1993), both the civil rights movement and the student movements did not feature women within their leadership or women's issues on their agendas (King, 1987). In 1969, the Redstocking Manifesto expressed feminist concern about mainstream American society and the movements seeking recognition:

> We cannot rely on existing ideologies, as they are all products of male supremacist culture. We question every generalization and accept none that are not confirmed by our experience. Our chief take at present is to develop female class consciousness through sharing experience and publicly exposing the sexist foundation of all our institutions. Consciousness-raising is not "therapy," which implies the existence of individual solutions and falsely assumes that the male-female relationship is purely personal, but the only method by which we can ensure that our program for liberation is based on the concrete realities of our lives. (As quoted in Shreve, 1989, p. 14)

These demands for recognition of difference have evolved, merged, and splintered during the last 30 years and now mobilize groups under the banners of ethnicity, race, gender, and sexuality (Aronowitz, 1996). This evolving political imagination centers on notions of identity, difference, cultural domination, and recognition that set the agendas for both theory and action in cultural and political arenas. The issues articulated in the early documents of these movements—fairness, representation, access, social structures, contradictions between rhetoric and practice, violent repression, hierarchies of values, normality, old solutions that are really problems, freedom—still permeate these social struggles and harness the energies of social scientists and workers (Calhoun, 1995). Within this ethos literacy researchers and educators have produced a variety of responses to the ways in which the struggles for recognition have cut across schooling and language practices.

Responses to difference within literacy education

Struggles for the recognition of marginalized groups in schools translated their social agendas to classroom contexts (Bennet & LeCompte, 1990). To begin, most groups acknowledged the potential benefits of schooling, but they argued that those benefits, like all other social values, were not distributed equally among U.S. citizens. In fact, some maintained that schools were used primarily to reproduce the social status quo in the U.S. (e.g., Bowles & Gintus, 1976). Marginalized groups demanded access to schools, to the preferred curriculum, and to full participation during lessons. Once admitted to these privileged spots they asked for reasonable treatment, fair according to their needs (Banks, 1995). They sought to change the preferred curriculum so that they might find themselves within it and to expand the range of normal values, ideas, and behaviors to include cultural practices other than European.

A first step in that direction would acknowledge that marginalized groups had cultures, languages, and moral codes that were viable social practices, even for school classrooms (Nieto, 1992). Each group articulated these demands differently but forcefully. All hoped for changes in policy, if not the structures of schooling, and many sought freedom for themselves and their children within classrooms. That is, they hoped to participate in setting the options and practices available in literacy programs, and then to choose among those alternatives (Levine, 1996). Since these demands struck at the traditional values, texts, teaching practices, policies, and rationale of schooling and literacy education, all those interested in schools were forced to respond. Because the struggles for recognition in literacy programs sought to redistribute the benefits of schooling more equitably, potentially reordering power relations in the future, all responses were and are essentially political. Those responses can be grouped loosely by political stances.

Conservative

Conservatism has always been reactive, a response to political movements that conservatives fear and want to halt. Modern conservatism was born in opposition to the French Revolution and much of the Enlightenment (Hobsbawm, 1969). The basic tenets of conservatism are property, class, tradition, courts of law based on these notions, and spiritual hierarchies associated with organized religion. Any movement that proposes innovation is to be opposed on principle. In *The Conservative Mind*, Russell Kirk (1953) listed six canons of conservative thought: (a) belief that a divine intent rules society as well as conscience, (b) affection for the traditional life, (c) conviction that civilized society requires hierarchies and classes, (d) persuasion that property and freedom are inseparable, (e) faith in prescription, and (f) recognition that change and reform are not identical.

> Previously, even in America, the structure of society had consisted of a hierarchy of personal and local allegiances—man to master, apprentice to preceptor, householder to parish or town, constituent to representative, son to father, communicant to church.... This network of personal relationships and local decencies was brushed aside by items in that catalogue of progress which school children memorize. (Kirk, 1953, p. 27)

After the 1960s, conservatives understood marginalized groups' struggles for recognition as attempts to brush aside all six canons of conservative thought and to provide brooms for all U.S. citizens through schooling. Conservative opposition took a four-pronged approach: (a) proposed changes to literacy curriculum were a form of secular humanism, (b) equal access to schooling and equal treatment in schools denied the natural difference among races and classes, (c) inclusion of non-Western cultural practices lowered cultural standards and limited communication, and (d) federal action to enforce social changes in schools violated statutes of local control of schools (Sowell, 1986). Echoing Murray's (1960) charge that schooling was the main agency of secular religion in the U.S., conservatives charged that struggles for recognition of marginalized groups pushed schooling even further from established formal religion and its traditional Christian moorings (LaHaye, 1983). Attempts by textbook publishers and educators to increase the representation of marginalized groups within textbooks and library texts were met with strident opposition from conservatives who engaged in local and national censorship battles within the courts (DelFattore, 1992). Vintz (1986) reported a National Institute of Education study that concluded that school textbooks are antireligious, antipatriotic, and antifamily, offering conservatives ammunition for an assault on multicultural curricula.

Indeed, conservatives do not wish to deny or ignore difference between themselves and marginalized groups. Rather they maintain that their justifications for different treatments of the poor, racial minorities, and women are based on these natural differences. In *The Bell Curve: Intelligence and Class Structure in American Life*, Herrnstein and Murray (1994) offered a conservative defense of traditional class and racial hierarchies. Their argument was that endowments of intelligence differ among rich and poor and whites and blacks. Moreover, these endowments are largely genetic, and therefore, there is little that can be done about these differences. Efforts to melio-

rate them through compensatory schooling, affirmative action, and social welfare programs were and are wrongheaded because they will exclude some worthy people and include some undeserving. Although they argue that people should be treated as individuals and not group members, they base their book on group data and inform the public that group differences are to be expected:

> Nothing seems more fearsome to many commentators than the possibility that ethnic and race differences have any genetic component at all. This belief is a fundamental error. Even if the differences between races were entirely genetic (which they surely are not), it should make no practical difference in how individuals deal with each other. The real danger is that the elite wisdom on ethnic differences—that such differences cannot exist—will shift to opposite and equally unjustified extremes. (Herrnstein & Murray, 1994, p. 270)

Herrnstein and Murray (1994) argued that the unequal natural endowments of intelligence drive traditional social life. These endowments accounted for the meritocracy within U.S. democracy that ensures individual freedom to participate in the economic and political life. Some enjoy plenty because they are smarter, others suffer want because they are not. This is nature, and "the egalitarian ideal of contemporary political theory underestimates the importance of the differences that separate human beings. It fails to come to grips with human variation" (p. 532). In order to come to grips with these fundamental variations, many social programs should come to an abrupt end—welfare, affirmative action, even compensatory schooling. Welfare breeds dependency, affirmative action pushes members of marginalized groups beyond their levels of competence, and compensatory schooling retards the intelligent and frustrates the unintelligent. "For many people, there is nothing they can learn that will repay the cost of the teaching" (p. 520).

Conservatives argue that before the struggles for recognition forced the misguided utopian promises that education could improve on nature, schools served society well. They were places where individuals learned to sort themselves within the natural order. To restore natural order to schooling, programs designed to meliorate inequalities—Head Start, Title I, and Title IX—should be cut and the newly available funds should be used to extend the education of the gifted. According to conservatives, literacy education should be leveled hierarchically by difficulty from functional skills in reading and writing (phonics, grammar, and spelling taught in traditional ways, and a basic fact curriculum to aid communication) to sophisticated practices of literary and philosophical criticism. Such curricular adjustments would enable students and their parents to decide when to stop school attendance in order to fill an appropriate social role. While students are in school—especially the brighter ones who push on to the next level—they should not succumb to the demands to expand the curriculum in order to accommodate popular cultures:

> The only serious solution is the one that is almost universally rejected: the good old Great Books approach, in which a liberal education means reading certain generally recognized classic texts, just reading them, letting them dictate what the questions are and the method of approaching them—not forcing them into categories we make up, not treating them as historical products, but trying to read them as their authors wished them to be read. (Bloom, 1987, p. 344)

Neoconservative

The name, if not the notion, of neoconservatism came in reaction to the 1960s struggles for recognition. The Left in the U.S. split into at least two groups over the issue of integrating labor unions and the antiwar movement—one group embraced the new politics (which will be discussed later in this article) and the other became what Michael Harrington, then editor of *Dissent*, called neoconservatives. Kristol (1983) explained, "neoconservatism is a current of thought emerging out of the academic-intellectual world and provoked by disillusionment with contemporary liberalism" (p. 75). "Typically, this dissatisfaction arose because the way of life of the left seemed to demand so many forms of false consciousness and, above all, a loathing for the American system" (Novak, 1986, p. 47). According to neoconservatives, the new left did not offer a coherent set of goals that could be fought for or negotiated, but rather the new left's "politics of confrontation is not really about the satisfying of grievances but the destruction of authority itself" (Bell & Kristol, 1968, p. xi).

Although neoconservatives lack a manifesto or a platform, they share a unifying practice—a spirited defense of the status quo. That defense requires that they borrow ideas from both liberals and conservatives. Like liberals, neoconservatives engage capitalism as a central tenet of democracy, ensuring more than just the protection of property. Capitalism also is considered the guarantor of individual rights to accumulate property freely—thus, theoretically accounting for class mobility. Recognizing the current cultural realities of the U.S. population and the harsh nature of capitalism, neoconservatives favor a reduced, but operative, welfare state. They agree with conservatives that America needs a strong national defense against communism and religious and political terrorists. Moreover, they adopt conservative notions of the transcendent nature of European and

Christian values as the basis for civil society and personal character. Gerson (1996) explained:

> Whereas neoconservatism rejects the liberal notion that a society of separate individuals pursuing their interests and following their desires will somehow lead to the common good, neoconservativism insists on the liberal idea that involuntary characteristics such as race, rank, and station should never restrain an individual. Likewise, while neoconservativism rejects the traditional conservative emphasis on the authority of tradition and glorification of the past, it shares conservative concerns with order, continuity and community. (p. 8)

Neoconservatives' orientation toward the present and their willingness to entertain traditionally liberal and conservative thoughts simultaneously led conservative Russell Kirk to remark that "the neoconservatives are often clever, but seldom wise" (1988, p. 4).

Neoconservatives consider schooling to be an essential weapon in the defense of the status quo because "it involves above all the image of man into which we should like to see the child mature" (Kristol, 1958, p. 371). Neoconservatives wade forcefully into the conservative/liberal debate over the culture wars on the university campus, siding clearly with conservatives because they equate multiculturalism with a moral relativism and moral relativism with disaster (see Himmelfarb, 1994; Kimball, 1990). The absence of a clear moral code in schooling and society, they argue, jeopardizes the safety of property and civil order. As William Bennett explained, "Unless those exploding social pathologies of the last thirty years are reversed, they will lead to the decline and perhaps even to the fall of the American republic" (1994a, p. 8). Those social pathologies are the programs and cultural practices promoted by the struggles for recognition during the 1960s. This imperative to stop the spread of moral relativism sets the neoconservative agenda in foreign and domestic affairs as well as in schools.

> The essential first step is to acknowledge that at root, in almost every area of important public concern, we are seeking to induce persons to act virtuously, whether as school children, applicants for public assistance, would-be lawbreakers, or voters and public officials. Not only is such conduct desirable in its own right, it appears now to be necessary if large improvements are to be made in those matters we consider problems: schooling, welfare, crime, and public finance. By virtue, I mean habits of moderate action; more specifically, acting with due restraint on one's impulses, due regard for the rights of others, and reasonable concern for distant consequences. (Wilson, 1995, p. 22)

To induce virtuous action, neoconservatives recommend moral literacy—the ability to read alphabetic texts and live according to a proscribed set of virtues, to write virtuous texts and lives in order to bring Western notions of civility to public life, and to provide virtuous texts and acts for others to read and emulate. Although many neoconservatives are involved in projects to develop moral literacy, the most well known is William J. Bennett, former Secretary of Education during the Reagan administration, former drug czar during the Bush administration, and currently a distinguished Fellow at the Heritage Foundation. Bennett's first efforts on behalf of moral education were directed at schooling. As Secretary of Education, he set his agenda "to get clear answers to the fundamental questions about education: What should children know? And how can they learn it?" (1984, p. 2). Standing in the way of clear thinking on these matters was an "infusion of diversity in schools" and a "surfeit of confusion, bureaucratic thinking, and community apathy" (p. 3). Later, in *First Lessons* (1986), he wrote:

> Although most teachers seek to reinforce good character in their students by teaching honesty, industry, loyalty, self-respect, and other virtues, their presentation of certain issues may yet be clouded by foolish "value-free" educational theories and by their perceptions of conflict among value systems represented in their students' diverse backgrounds. (p. 17)

In *James Madison Elementary School: A Curriculum for American Schools* (1988), he concluded that what was needed was a return to "time-tested principles of good education" (p. 9). Those principles included skill lessons in phonics, grammar, spelling, memorization of facts, and clear communication about the meaning of text. Each principle was important as much for the discipline of mind and body it instilled as for the knowledge the lessons should develop. After leaving government service, Bennett began to publish anthologies of moral tales to induce virtue and "continue the task of preserving the principles, the ideals, and notions of goodness and greatness we hold dear" (1994b, p. 12). Those tales are to be "drawn from the corpus of Western Civilization, that American school children, once upon a time, knew by heart" (p. 15).

Neoconservatives see the school and literacy education as the main battleground in the struggle to preserve the status quo. Equal access to schooling affords teachers the opportunities to induce virtue within all communities and cultures across the U.S. Accordingly, colleges of education and educational bureaucracies must be reformed in order to prepare teachers to overcome the moral relativism of everyday society so that they can provide children and their families with good moral models. Once reformed around the corpus of Western civilization, educators must employ the time-tested principles of good ed-

ucation to instill moral literacy as a common means of communication among all U.S. citizens. This education will keep order among cultural groups and allow each group to explore itself without risk to others.

Neoliberal

If neoconservatives are liberals who took a critical look at liberalism and decided to become conservatives, neoliberals are liberals who took the same look and decided to retain liberal goals but to abandon some of its strategies (Peters, 1983). Although neoliberals support individual liberty, justice, and fairness, they no longer automatically favor unions and big government or oppose the military and big business. "Indeed, in our search for solutions that work, we have come to distrust all automatic responses, liberal and conservative" (Peters, 1983, p. 21). The failure of those automatic responses to provide security, prosperity, and hope has left the U.S. (and the world) in economic and social crises (Rothenberg, 1984). According to neoliberals, international struggles for recognition created a world in which specialized markets desire products to fit specific needs. Economies based on large corporations engaging in mass production can no longer meet the challenges posed by this new world order (Reich, 1987). The transition of the U.S. economy from mass production to one that can quickly reorganize itself has unsettled traditional assumptions about work, government, and community. Neoliberals point toward rising crime rates, a shrinking middle class, and the abandonment of cities as some of the unfortunate social consequences caused by U.S. citizens' reluctance to change their assumptions and reorder their lives so that the U.S. can compete in a global economy.

A major tenet in neoliberal pragmatic economics is the readiness of the U.S. workforce to meet the demands of a global economy (Fowler, 1995). Neoliberals maintain that too few U.S. citizens are ready, willing, or able to retrain themselves periodically in order to supply the workers needed by business for flexible production. Rather, too many court disaster by continuing to live according to out-of-date assumptions about the world and their places in it (Smith & Scholl, 1995). To overcome this problem, neoliberals propose that everyone should continuously develop his or her workskills in order to obtain the high-skill/high-wage jobs that currently remain unfilled and presently will emerge in U.S. businesses (Smith, 1995). As Ray Marshall (former Secretary of Labor) and Mark Tucker (President of the Center for the Economy and Education) explained, the main obstacle to the development of human capital is schooling in the U.S.:

> In the first part of this century, we adopted the principles of mass-producing low-quality education to create a low-skill workforce for mass production industry. Building on this principle, our education and business systems became tightly linked, developing into a single system that brilliantly capitalized on our advantages and enabled us to create the most powerful economy and the largest middle class the world has ever seen.... But most of the competitive advantages enjoyed at the beginning of the century had faded by mid-century, and advances in technology during and after the war slowly altered the structure of the domestic and world economy in ways that turned these principles of American business and school organization into liabilities rather than assets. (Marshall & Tucker, 1992, p. 17)

Most of the school reform activity since the *A Nation at Risk* report reflects a neoliberal agenda (McCollum-Clark, 1995). Throughout the mid-1980s, neoliberals backed by philanthropic organizations negotiated and brokered consensus concerning the need for school reform and consequent changes in teacher education, culminating in the development of the America 2000 educational initiative and its evolution through the Clinton administration. Central to that policy was the development of national curriculum standards and examinations to increase the general readiness of workers in the U.S. for employment. Those standards were to include "specification of content—what students should know and be able to do—and the level of performance that students are expected to attain—how good is good enough" (National Council of Education Standards and Testing, 1991, p. 3). Secretary of Education Richard Riley and CEO of the Corporation for National Service Harris Wofford presented the centrality of literacy standards:

> Literacy can help give people the tools to make the most of their potential and prepare them for the 21st century, when a fully literate work force will be crucial to our strength as a nation. It is in the interests of all of us to do all we can to ensure the reading success of every young child by the end of the third grade. (Riley & Wofford, 1997)

Although the National Board of Professional Teaching Standards began work on developing assessment measures for national certification of English language arts teachers earlier (Pence & Petrosky, 1992), the work on national curricular standards did not begin until October 1993 when the U.S. Department of Education announced the award of a US$1.8 million grant to the Center for the Study of Reading at the University of Illinois (CSR), the International Reading Association (IRA), and the National Council of Teachers of English (NCTE). Miles Myers, then Executive Director of the NCTE, presented the neoliberal agenda of this group succinctly: "The standards documents may be used to launch a new kind of civil-rights movement focused on educational opportunity and, as a result, the present standards move-

ment may begin to have a federal and national character quite different from past standards movements" (Myers, 1994, p. 151). "The point of public schools is to give children power in English so they can be productive workers. There isn't any doubt about our goal" (Miles Myers, as quoted in Woo, 1996). Halfway through with the contract, the federal government withdrew its financial support for the CSR/IRA/NCTE standards project, citing that it was not making "expected progress" (Diegmueller, 1994, p. 9). Embarrassed but unwilling to quit, the IRA and NCTE boards voted to fund the second half of the project by themselves. English language arts standards were published in March of 1996 to a less than rousing reception from the government and press. "That report contains very vague and very general statements that don't tell parents or students what is important to learn and don't tell teachers what is important to teach and by when" (Michael Cohen, Senior Advisor to the U.S. Education Secretary, as quoted in *The New York Times*, 1996, A12).

To help build a workforce according to neoliberal specifications, many state education departments have continued the work on English language arts standards. For example, New York State mandated that all high school graduates will take and pass Regents examinations in four core subjects. Texas adopted a curriculum that specified instructional methods and threatened to withdraw funding from schools and colleges of education that did not comply. California banned curricula that it had mandated in 1987, forbade state funds to be used for teachers' professional development that advocated the banned curriculum, and required that all school instruction be delivered in English only. Each of these actions has a neoliberal agenda to enable all citizens (even those who struggle for recognition) to develop their human capital in order to fulfill the nation's economic destiny.

Liberal

Liberalism is a modern political philosophy, beginning during the Renaissance and Reformation and acquiring firmer roots during the Enlightenment (Hobsbawm, 1969). Although not easily reducible to a set of general propositions, liberalism springs from a vision of society as crucially composed of individuals and accepts their liberty as the primary social good (Hobbes, 1967; Locke, 1952; Mill, 1965). This liberty is often defined as free political institutions, religious practices, and intellectual and artistic expression (Hayek, 1960). Liberal government is primarily developed to preserve rather than inhibit those individual freedoms. During the 19th century, liberals sought limits on government actions in economic and social matters, believing that free markets and free trade of commodities and ideas would protect property and secure rights for all citizens. Changing economic and political patterns of the 20th century demanded a reappraisal of liberalism's laissez-faire assumptions (Keynes, 1936). For example, the Great Depression required liberals to propose the New Deal, including the Social Security Act of 1935 (which offered federal income guarantees, aid to families with dependent children, and support for unemployment insurance as well as aid to banks and businesses), and the Fair Labor Standards Act of 1938 (which finally outlawed child labor in factories and sanctioned a 40-hour work week, as well as gave aid to banks and businesses).

In response to the struggles for recognition during the 1960s, U.S. liberals negotiated the Great Society—targeted laws, federal and state policies, and governmental agencies to establish, reaffirm, and then maintain these rights of all citizens (Rorty, 1998). For example, the Voting Rights Act of 1965 (which ensured federal protection on site for minority voters), and the Elementary and Secondary Education Act of 1965 (which authorized remedial instructional help for the poor and equal opportunities for women in academics and athletics) were liberal attempts to include the disenfranchised in civic life without making any fundamental changes to the U.S. basic economic, political, or social systems.

In *When Work Disappears*, sociologist William Julius Wilson decried the havoc that 30 years of conservative, neoconservative, and neoliberal governments have wreaked on the liberal agenda of the middle third of the 20th century:

> This retreat from public policy as a way to alleviate problems of social inequality will have profound negative consequences for the future of disadvantaged groups such as the ghetto poor. High levels of joblessness, growing wage inequality, and consequent social problems have their sources in fundamental economic, social and cultural changes. They therefore require bold, comprehensive, and thoughtful solutions, not simplistic and pious statements about the need for greater personal responsibility. (1996, p. 209)

Wilson offered short-term and long-term liberal alternatives to the illiberal social projects of the Reagan, Bush, and Clinton administrations. Among the short-term ones, he listed continued welfare and job programs, expanded Medicare, and continuation of earned income credits. He applauded the neoliberal attention to educational standards as a long-term solution; however, he quotes Linda Darling-Hammond to point this attention in a more liberal direction. "Can the mere issuance of standards really propel improvements in schooling, or are there other structural issues to contend with—issues such as funding, teachers' knowledge and capacities, access to curriculum resources, and dysfunctional school structures?" (1994, p. 480). In a report read before a Senate

subcommittee on poverty and minority rights, Rotberg and Harvey explained how these liberal educational concerns overlap:

> More often than not, the "best" teachers, including experienced teachers, offered greater choice in school assignment because of their seniority, avoid high-poverty schools. As a result, low-income and minority students have less contact with the best qualified and more experienced teachers, the teachers most often likely to master the kinds of instructional strategies considered effective for all students. (1993, p. 52)

Rotberg and Harvey's quotation marks around the word *best* mark the vigorous debate over the meaning of that word in its educational context. For liberals, the criterion for determining best has always been the same—science (House, 1978). In order to judge the relative merits of any endeavor the outcomes must be measured and compared, and the century-long liberal tradition of applying scientific methods to improve instructional practices in reading education continued unabated during the struggles for recognition (Shannon, 1989). The First-Grade Studies (Bond & Dykstra, 1967), mastery learning (Block & Burns, 1974), teacher effectiveness (Brophy & Good, 1984), and best practices studies (Allington, Gambrell, Morrow, & Pressley, 1997) all sought to discover generalized best methods for teaching reading in order to make them available to all students.

Yet the struggles for recognition called this generalizing into question, suggesting that liberal science has overlooked issues of context, culture, and change in their efforts to determine best practices (Lather, 1991; McCarthy & Crichlow, 1993). By ignoring these essential elements, liberals have in fact perpetuated the cultural problems they sought to eliminate (Fraser, 1997). These social challenges have forced liberals to rethink most of their foundational assumptions—their ideas of laissez-faire capitalism, and even the definition of science—and to apply new ideas and methods to the pursuit of ensuring the educational rights of newly enfranchised citizens.

Often employing ethnographic, phenomenological, or other qualitative methods of research, many liberals explored learning to read and write from multiple vantage points (Beach, Green, Kamil, & Shanahan, 1992). Some found schoolwide and classroom barriers to the development of effective practices for all students. For example, Rist (1970) reported that tracking students in ability groups had more to do with teachers' cultural bias than with individual ability. Once assigned to lower ability groups, minority and poor students received differential treatment such as more controlling teacher feedback (e.g., Eder, 1981), fewer opportunities to read (e.g., Allington, 1977), and too difficult materials and tasks (e.g., Gambrell, Wilson, & Ganett, 1981), all of which contributed to self-fulfilling prophesies about low school achievement among poor and minority students. Liberal recommendations to ensure fair treatment within classroom reading programs abound (see Barr, Kamil, Mosenthal, & Pearson, 1991; Pearson, Barr, Kamil, & Mosenthal, 1981).

Curricular materials and practices also received liberal scrutiny. Studies questioned the Western and patriarchal themes that permeated reading textbooks and the literature shared with students, seeking to expand the number of cultures and cultural practices sanctioned by the official knowledge of schooling (Sims-Bishop, 1982; Sleeter & Grant, 1991; Taxel, 1978). Accepted school standards of language, literacy, and thought were challenged as the logic and validity of alternatives were demonstrated and calls for instructional accommodation became more numerous (see Bloome, 1987). First among those accommodations was a demand to end the use of culturally biased mental and achievement tests in educational decision making (Ogbu, 1974). Liberal researchers asked teachers to learn about the multiple ways in which individuals and groups used language and literacy to meet their daily needs and to bring that new knowledge to bear on their teaching (see Banks & Banks, 1995). By using relevant topics and cultural practices, liberal educators could ease marginalized groups toward the academic mainstream, which they believe will eventually move them toward the social and economic mainstream. These adjustments in the materials and teaching of reading and writing were and are intended to distribute the benefits of schooling, and those of society, more equitably to all students regardless of race, class, or gender.

Radical democratic

Radical democrats begin with the premise that 20th-century attempts at democracy have failed (Trend, 1996). That is, self-labeled democratic nations have been unsuccessful in securing universal participation in civic life. In the United States, for example, only half of those eligible to vote do so in national elections; many individuals and groups feel alienated from civic life even at a local level; and wealth subverts efforts to engage the alienated. Collectivist attempts to overcome the limits of liberal democracy, often through single-party systems, have been unable to protect individual rights of *freedom to* as they attempted to construct societies to ensure universal rights of *freedom from* want. Radical democrats argue that these failures are predictable based upon the inabilities of conservatives, liberals, and collectivists to take up issues of diversity productively (Marable, 1992): "What we share and what makes us fellow citizens in a liberal democratic regime is not a substantive idea of the good, but a set of

political principles specific to such a tradition: the principles of freedom and equality for all" (Mouffee, 1993, p. 65). Although conservatives, neoconservatives, neoliberals, and liberals claim their positions to be founded on principles of freedom and equality, their respective visions of *the good* force them to promote differing definitions of freedom and equality and to demand consensus about visions and definition on their terms alone. To the contrary, radical democrats suggest that democratic politics *require* these adversarial relations among social actors as they advocate their interpretation and their preferred social identities:

> It is the tension between consensus—on the values—and dissensus—on the interpretation—that makes possible the agonistic dynamics of pluralist democracy. This is why its survival depends on the possibility of forming collective political identities around clearly differentiated positions and the choice among real alternatives. (Mouffee, 1995, p. 107)

Many members of marginalized groups reject the identities that traditional U.S. ideologies afford them (Benhabib, 1992; Hooks, 1994). My opening example was offered to portray this point; conservatives (and neoconservatives) reject metaphorically Ali's right to name himself. Instead they offer him (and us) rather fixed identities, with limited possibilities for him (and us) to articulate what possible life choices might be brought into existence or to choose among those currently available. These limits deter our interests in participating in civic life, whether local or at a distance, because either consciously or unconsciously we understand the limits of our freedom and the absence of equality within these ideological conditions. Of course, our alienation leaves traditions, hierarchies, and power relations unchanged and little challenged, which, as I have explained, is the conservative agenda, their definition of *the good.* Liberals (both old and new) might encourage Ali (and us) to call himself whatever he likes, just as long as he does (and we do) his (our) naming within unaltered social, economic, and political structures. Despite outward appearances of difference (a more humane basis to those structures), the consequences of liberalism are much the same as conservatism, with more cultural freedom possible. Perhaps this explains why some critics find so little difference in U.S. political positions and choices:

> The liberal version of multiculturalism is premised on a one-sidedly, positive understanding of difference. It celebrates difference uncritically while failing to interrogate its relation to inequality. Like American pluralism, the tradition from which it descends, it proceeds—contrary to fact—as if United States society contained no class divisions or other deep-seated structural injustices, as if its political-economy were basically just, as if its various constituent groups were socially equal. Thus, it treats difference as pertaining exclusively to culture. The result is to divorce questions of difference from material inequality, power differentials among groups, and systemic relations of dominance and subordination. (Fraser, 1996, p. 206)

For democracy to work, radical democrats argue, individuals must recognize that their identities are multiple and fluid (Bachrach & Botwich, 1992). Ali is slave, Muslim, champion, conscientious objector, American patriot, world citizen, self-promoter, and selfless volunteer. In fact, we are all members of many social groups that influence our thoughts, actions, and values in substantial ways, and we vary our hierarchical arrangements of those memberships according to circumstance and intentions. Beyond that recognition, citizens must learn to use this power to force clear articulations of positions by forming coalitions to enact their shared concerns (Stone, 1994). Democracy, then, hinges on the development of individuals' identities that are committed to the values of freedom and equality (blended with the values of their other group memberships) and to active participation in civic life. Although this identity of democratic citizenship cannot be fully specified, it requires at least three elements: reflexive agency, the will to act, and the ability to make room for the adversary.

Reflexive agency invites citizens to evaluate the world in terms of their intentions and values and, at the same time, to evaluate those intentions and to reflect upon those values. In this way citizens take inventory of their identities, their values, their motives, and their actions, investigate the sources of those parts of themselves, and make choices about which ones they hope to enhance and which they hope to diminish.

The will to act, which for many has been diverted from public life to private matters, must be redirected through individuals' sociological imagination—recognition that their apparently private matters are really connected to public issues because their *problems* are shared by many. As individuals become aware of the political possibilities of their multiple and fluid identities and the real opportunities to form larger, more effective coalitions for accomplishing goals shared across social groups, the will to act in civic life increases in likelihood. Reflexive agency ensures that coalitions will not become fixed power blocks as basic and secondary assumptions for action are consistently scrutinized.

Because those identities are not fixed and future intersections of values cannot be predetermined, citizens begin to recognize the need to *respect the positions of their adversaries*—not to the point of agreement, certainly, but enough to recognize commitment to the shared principles of freedom and equality. The limits on this re-

spect are set by individuals' and groups' commitment to those principles. Anyone rejecting freedom and equality outright stands outside the democratic process and, therefore, becomes the legitimate object of democratic scorn. "Adversaries will fight about the interpretation and the ranking of values, but their common allegiance to the values that constitute the liberal democratic form of life creates a bond of solidarity that expresses their belonging to the common 'we'" (Mouffee, 1995, p. 107).

Radical democrats seek to identify and establish the social conditions that produce democratic citizenship. Similar to other ideological positions attempting to influence an individual's construction of his or her identity, schooling and literacy education figure prominently within radical democratic explorations. Radical democrats begin with critiques of the major works and ideas on education offered by conservatives (see Kincheloe, Steinberg, & Gresson, 1996, concerning Herrnstein & Murray's *The Bell Curve*, 1994), neoconservatives (see Greer & Kohl, 1995, on Bennett's *The Book of Virtues*, 1994b), neoliberals (see Gee, Hull, & Lankshear, 1996, on their consideration of economic management techniques), and liberals (see Aronowitz, 1988, for a critique of science as the dominant form of human knowledge). Fundamental to each of these critiques are the ways in which these seminal works and ideas direct educators to consider differences among students. Tracking, core curriculum, and didactic moral training seek to segment, erase, and contain difference in schools. Standardization of curriculum and assessment, mainstream multicultural education, and identification of best methods and their distribution from *good* to *failing* schools divorce issues of cultural difference from social relations and social structures. Even in the best of circumstances, then, contemporary schools' treatment of difference privileges freedom over equality:

> We need, therefore, to create a new political culture in which we are encouraged to interrogate the received consensus of American values and to resist hegemonized approaches to ethnic diversity whose narrative telos is necessarily linked to a politics of premature and uncritical unity, consensus, and agreement, to the logic of liberal individualism, to political appeasement, to a stratified and hierarchically ordered polity. For a democracy of consensus is a democracy of neutrality in which undemocratic practices at the level of daily life go depressingly unquestioned and unchallenged. (McLaren, 1997, p. 296)

During the 1990s, literacy researchers and educators have used the tenets of radical democracy in order to interrogate conservative and liberal literacy programs and research. Macedo (1994) challenged what it is that every U.S. citizen should know. Knoblauch and Brannon (1993) demonstrated who is attempting to close those citizens' minds. Coles (1998) defined the limits of neoliberal national literacy policies. Willis and Harris (1997) reminded liberals that the First-Grade Studies ignored cultural difference. Dudley-Marling and Murphy (1997) questioned the goal of Reading Recovery to return recovered children to traditional classroom settings. Edelsky (1994) tweaked whole language for its neglect of power relations in and out of schools. Delpit (1995) blasted progressive educators for not teaching other people's children the codes of power. Taylor (1997) argued that family literacy has many different paths and outcomes beside readiness to do well in traditional primary school grades.

In each case, the critics ask their peers to acknowledge the limits of current considerations of difference and the ways in which our socially constructed structures constrict democratic thoughts and actions within research and teaching. They implore literacy researchers and educators to take past and ongoing stuggles for recognition more seriously and to use their sociological imaginations to envision different structures and practices—ones that are more likely to result in a better balance between freedom and equality for all U.S. citizens.

Several literacy researchers offer examples of how these steps might be taken. Judith Solsken (1993) described how her sociological imagination developed as her efforts to affirm liberal approaches to teaching were complicated by her recognition that the apparently personal tensions that young students experienced while learning to read and write were connected to larger public issues beyond the classroom and school. Observing 13 white middle class children in kindergarten and following four through the end of second grade, Solsken connected children's individual behaviors in and out of the classroom with the ongoing negotiations of social relations surrounding issues of gender and class in the school, the community, and across the nation. Her study exposed the myth that middle class communities are composed of homogeneous groups as children struggled with competing adult ambiguities about literacy—whether reading is a female or ungendered activity, learning is work or play, and valuing should be set at home or school.

"Classroom pedagogical practices and changing social relations allowed new ways of managing old tensions and also introduced new tensions as well, but did not alter children's basic investments in literacy to any appreciable extent" (Solsken, 1993, p. 218). That is, despite the best of intentions among teachers and parents, young children must negotiate their identities as a family member, student, male or female, literate being, and child within a storm of contradictory messages as they struggle to make a coherent whole of it all. Solsken sought

reflexive agency as the basis of literacy education right from the start. She concluded:

> Only by reconceptualizing literacy in our research and teaching as an action through which people define themselves and construct their relations with other people can we fully understand what is happening in literacy instruction and make informed ethical choices about the social worlds we construct together inside and outside our families and schools. (p. 219)

In a series of studies, Luis Moll and associates (Moll & Diaz, 1987; Moll et al., 1990; Moll, Amanti, Neff & Gonzales, 1992) attempted to blur the boundaries between school and community within working class Mexican neighborhoods in Tucson, Arizona. Rejecting "the prevailing and accepted perceptions of working-class families as somehow disorganized socially and deficient intellectually" (Moll et al., 1992, p. 134), the researchers designed a four-part study agenda: (a) an ethnographic analysis of household dynamics within the community, (b) an examination of ongoing instructional practices in the community school classrooms, (c) an after-school study group in which university-based and teacher research teams shared data, and (d) a curriculum development project based on the findings of the studies. Within the households and across the community, the researchers found a wealth of knowledge and pedagogies, which community members used to share and exchange resources in order to enhance individual households' chances of survival and relative prosperity. Within these networks, individuals assumed multiple identities as parents, teachers, workers, budget managers, mechanics, medics, gardeners, worshipers, etc. During the study, teachers learned to tap into these networks and the funds of knowledge they possess in order to extend school classrooms into the community and, moreover, to transform the language and literacy learning in the school. Such projects embed the struggles for recognition within the development of democratic citizenship, as former adversaries collaborate to enhance their own and students' feelings of agency and connection to civic life surrounding schools.

Patricia Enciso (1998) questioned literacy educators' role in the construction and maintenance of the *already given self* for preadolescent girls. She wrote, "I am committed to making visible those reading practices that can be girl-destroying, while I am also committed to finding new pedagogies that might make it possible for girls to 'author' their own reading and their own lives" (p. 45). Employing The Symbolic Representation Interview (SRI), a series of artistic and dialogic activities that seek to uncover how readers understand the ways in which texts position them and how they position themselves while reading favorite stories, Enciso interpreted how four girls negotiate their identities as good or bad girls in a patriarchal school environment, affirm their commitment to their social group, and construct meaning about text and life relationships posed for them in *Sweet Valley Twins: Best Friends* (Pascal, 1986). During the interview, the girls affirm and interrogate their certainties about themselves as they describe their associations with story characters and their real and fictional associations with others. As a result of this pedagogy, they open up new possibilities for themselves as readers and authors of themselves. "The SRI creates a sanctioned place that makes possible the redefinition of being and becoming a girl: such a place, and its related questions of positioning, must become part of a literature pedagogy if we want to go beyond simply espousing ideologies of emancipation and feminism" (p. 61).

The definitions of that space come in many forms. In a series of studies, Jabari Mahiri (1996, 1997, 1998; Mahiri & Sabbo, 1996) compares adolescent African Americans' voluntary efforts to describe and mediate their lives outside the classroom with the formal literacy curriculum of their schooling. Through interviews and textual analyses, Mahiri identified the considerable skill and complex themes that students demonstrate in their voluntary writing and their fear of and disrespect for in-class writing assignments. He observed that students use voluntary "writing not as mirrors but as lenses to view and reflect on their lives" (1997, p. 75).

In calling for relevant topics in the English classroom, Mahiri suggested that we acknowledge that students produce (not merely consume) knowledge and meaning when they willingly engage in reading and writing print and, perhaps, other media as well. That knowledge and meaning can become the center of the English curriculum—students demonstrate a dialectical relationship between reflexive agency and the will to act when analyzing their understandings of their lives through popular culture, probing the ways in which they position themselves and how they are positioned by others, and connecting their lives to social structures within and beyond their communities. Mahiri saw the beginnings of the production of countertexts to the given representations of black youth culture within their voluntary writings. He concludes that under appropriate conditions students could be taught to deepen their analyses with help from teachers who also use their literacies in these ways.

If Linda Brodkey's (1996) report is representative, then few teachers use their literacies as Mahiri had hoped. Working with prospective adult literacy teachers, Brodkey arranged a correspondence between adults participating in her class and adults participating in an adult literacy class. In learning to read the letters exchanged,

Brodkey noticed that the teachers distanced and then alienated themselves from their correspondents because the topics raised seemed too different, too personal, and too difficult to address in public writing. Teachers' attempts to limit the letters to safe topics proved unsuccessful because their partners continued to display their reasons for learning to read and write in each exchange. That is, they hoped to come to grips with basic issues of their lives through print. Brodkey concluded:

> The teachers in this study...are energetic and inventive practitioners committed to universal education. In their writing, however, that commitment manifests itself in an approach to teaching and learning that many educators share in this country, a view that the classroom is a separate world of its own, in which teachers and students relate to one another undistracted by the classism, racism, and sexism that rage outside the classroom.... What is ultimately challenged is the ideology that class and, by extension, race and gender differences are present in American society but absent from American classrooms. (p. 104)

Final words

If we listen, we can hear the sounds of past struggles for recognition within the voices of the young and not so young in these studies. The African American adolescents continue to speak to the colonization of their communities as SNCC explained in their statements of the 1960s. Mahiri implied that at least some of the violence in those communities echoes the Black Panther manifesto about oppression. The girls reading *Sweet Valley Twins* still find their needs largely unaddressed and misdirected within the patriarchal structures of school and reading instruction. Solsken's young children already demonstrate this tension of gendered systems at home and school. The communities of Tucson and the women in the adult education class ask the modern equivalent of "what's my name?" in their dealings with teachers. Some educators and researchers listen; others do not.

During our lifetimes, these voices have been louder or softer, but they have been ever present. They have negotiated laws and policies to protect against social and political discrimination, although as William Julius Wilson (1996) said, these laws and policies have been poorly enforced for the last 25 years. When my father and I watched Ali give notice that things were to change, we lived in the midst of shared relative economic prosperity that had not been seen before, nor has it been seen since. The poverty level was below 10% and falling, and more Americans seemed willing to consider both freedom *and* equality (Sklar, 1995). The majority of voters at that time had experienced the Great Depression and believed that governments should be responsible ultimately for the welfare of their citizens (Bellah, 1996). The remission of the need for struggles for redistribution of wealth during the 1960s afforded social space in which struggles for recognition could occupy central positions in progressive politics.

Now, the poverty level is 16% nationally and rising, with the official poverty line for family income drawn woefully too low (Blank, 1997). Within the tyranny of global capitalism, more and more U.S. workers are downsized to much less secure economic positions (Greider, 1997). The gap between rich and poor is widening to its greatest distance in our history. Ten percent of U.S. citizens own two thirds of the nation's wealth (Bartlett & Steele, 1996). Income levels of poor, working class, and nearly all middle class families have declined steadily since 1973, and this drop would be more steep if not for women entering the workforce in great numbers.

At the turn of the last century a similar economic reality was as readily apparent with at least one important difference. In the 1890s, the social and economic trajectory for the nation's have-nots was positive because capitalists needed better educated workers to fill the factories. In the 1990s, we experienced a downward turn to the prospects for nearly a third of U.S. citizens, who have been rendered unnecessary to business by technology (Bellah, 1999). Our current governments have employed a politics of substraction, reducing the braces of federal and state safety nets when our need is greatest. The competition is fierce for jobs that pay a living wage—not for lack of skilled workers but for lack of good jobs—and there is little help from government if you lose that competition (and many must lose).

Positioned to see fellow citizens as threats to their families' security, many in the U.S. fail to use any sociological imagination and learn to fear all others who can be characterized as not like them. Perversely, the economic and social structures that create and feed on this anxiety contribute directly to the extraordinary accumulation of wealth among the rich. Downsizing or benefit concessions often translate into gains in a company's stock value.

This economic vulnerability has caused many to become less attuned to struggles for recognition (Learner, 1999). The end of affirmative action, the demonization of single mothers, young black men, and immigrants, and the English-only movements suggest the influences of these struggles are less direct than they once were. As Putnam (1995) explained in his article, "Bowling Alone: America's Declining Social Capital," fewer U.S. citizens adventure into civil life beyond writing a check for membership in the Sierra Club, the National Organization for Women, or the world's largest association, the American Association of Retired People.

With insecurity about fundamental human needs, U.S. citizens seem less likely to associate with and attend to the needs of others. As a nation, we seem less willing to even hear their voices as they hang from fences in Wyoming, are dragged by cars in Texas, are sodomized with broom handles in New York City police stations, and are beaten and raped at home or on the street. Our capacities for empathetic understanding are nearly swallowed whole by our economic insecurities. Without strong advocates among the media and governments for the growing numbers of poor, and members of what Robert Reich (1997) called the anxious class, the prospects of freedom and equality within U.S. democracy seem bleak. These may seem to be issues beyond the scope of literacy education, but as Solsken, Moll, Enciso, Mahiri, Brodkey, and others attest, they cannot be separated from our work as literacy educators and researchers.

There have been changes in the conceptualizations and practices of literacy and literacy education during our times to be sure, and we should celebrate the political victories: where the canon has been expanded, where cultural differences are sought and examined, where boundaries among teachers, students, and community members are blurred—changes that seek a balance between freedom and equality. However, the recent movements toward federal and state government control of curriculum and assessment, and even instruction in some places, are steps backwards. As those who propose and pursue those controls seek to instantiate their definitions of freedom and equality for all, they work from traditional political ideological positions that cannot deal productively with difference or inequality. Our stances on these control—on dialect, canons, access, and others—are often traceable to conservatism, neoconservatism, neoliberalism, and liberalism as these ideologies play through our words and actions (Shannon, 1998).

Yet as we reflect upon our positions—their origins and intentions—we discover that these ideologies do not determine our identities as educators and researchers completely. They do not lock, and we are not locked, in fixed positions. We can still make history within the structures set in the past and present. We might begin by asking ourselves how these ideologies have influenced us, which elements we value and which we no longer value, and what other possibilities are available to us. Our multiple group memberships offer us the possibilities of challenging our current positions and creating new alliances and allegiances. We can choose to engage in civil life through our teaching and research, recognizing ongoing issues of recognition and reemerging struggles of redistribution as central to our efforts. Through our work, we can provide new spaces and new capabilities for all U.S. citizens to produce less violent equivalents to Ali's declarative question "what's my name?" in order to bring struggles for recognition and redistribution together.

A politics of literacy in the next millennium is much the same as that of the past and present. We will struggle to define and develop ways that literacy and literacy education can provide service to democratic projects that seek to extend freedom and equality into more aspects of our lives without privileging one too greatly over the other. Those efforts require us to engage in the identification and maintenance of structures that help individuals (re)construct democratic identities of reflexive agency, the will to act, and respect for adversaries and difference. The public nature of those politics—and they could be more public and open—creates spaces in which we can make visible the limits of current ideologies that attempt to close the open narratives of democracy and difference heard in the civil rights, student, and feminist movements of the 1960s, a resurgent labor movement of the 1990s, and extended in the voices of many youth in the U.S. today. Once these limits are visible, we must be prepared to push on those limits until we have transformed the structures of literacy education in ways directed by our sociological imaginations.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

The convergence of literacy instruction with networked technologies for information and communication

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Predicting the nature of literacy instruction during the new millennium is an impossible task. It is easy to be naive in a world that changes so quickly, especially as we anticipate the nature of an institution that changes so slowly. We are reminded, for example, of Thomas Edison's faulty prediction in 1922 about the effect of motion pictures on schooling and textbooks:

> The motion picture is destined to revolutionize our educational system...in a few years it will supplant largely, if not entirely, the use of textbooks.... We get about two percent efficiency out of schoolbooks as they are written today. The education of the future, as I see it, will be conducted through the medium of the motion picture . . . where it should be possible to obtain one hundred percent efficiency. (as cited in Cuban, 1986, p. 9)

We are reminded also of Seymour Papert's (1984) prediction, now 15 years old: "There won't be schools in the future.... I think the computer will blow up the school.... The whole system is based on a set of structural concepts that are incompatible with the presence of the computer" (p. 38).

Of course, neither prediction has come to pass. The motion picture has not revolutionized education nor has it replaced textbooks in schools. Moreover, schools are not in imminent danger of being discontinued as both the computer and classroom instruction have been shown to be quite compatible with evolving, constructivist views of education.

Clearly, accurately anticipating the future for any aspect of education is a challenge. In fact, developing this article is a bit like beginning to read a good book and then being asked to stop and write the remainder of the story, predicting every word exactly in order, every plot twist exactly as it happens, and every character's actions exactly as they take place. We know the story of literacy instruction up to the point where we started writing this article, and we have a general understanding of the forces at work in the remainder of the story, but it is impossible to predict every line, on every page, that follows.

Our contribution is not to make specific predictions about each line in that story. These inevitably will be proven wrong as change overwhelms our ability to anticipate it. Instead, we hope to develop a broad outline of the continuing story of literacy instruction that will take place in classrooms around the world. We hope our description will direct all members of the literacy community to focus their attention on networked information and communication technologies such as the Internet. We

must begin to explore these new contexts for literacy and learning if we wish to prepare children for their literacy futures.

Convergence

Although it is impossible to predict accurately every line in the story of literacy instruction, we do believe it is inevitable that one prediction will be fulfilled: the occurrence of accelerating convergence of literacy instruction with the use of networked information and communication technologies (ICT) in classrooms around the world. Currently the most important manifestation of these networked technologies is the Internet. The convergence of literacy instruction with Internet technologies is fundamentally reshaping the nature of literacy instruction as teachers seek to prepare children for the futures they deserve.

The convergence of literacy instruction and networked ICT follows the convergence of diverse media technologies into more unified technologies. Several media theorists (Martin, 1978; McLuhan, 1964, 1989) anticipated the convergence of separate information and communication technologies into more unified vehicles for their simultaneous use. Today, we see this taking place as computers, television, radio, and telephonic communication are converging into a single application, the World Wide Web of the Internet. Convergence is a defining characteristic of the profound changes happening today with information and communication technologies. We believe that literacy instruction will begin to accommodate itself to this fundamental facet of our lives. As the Internet enters our classrooms and as we envision the new literacies that Internet technologies permit, it is inevitable that literacy instruction and networked ICT such as the Internet will also converge.

Our analysis of this phenomenon will be based on what we see as the major cultural forces generating changes in the nature of literacy education in many countries. It will not be based solely on extant research on literacy or literacy instruction, though research will be used in our analysis. In fact, later we will argue that efficacy research on the use of ICT often is less important than simple observation about the changing nature of literacy.

Consider, for example, a startling fact: Despite limited efficacy data and many calls for more data demonstrating the effects of ICT on student learning (Cuban, 1986; Oppenheimer, 1997; Rochlin, 1997; Roszak, 1994; Rukeyser, 1998; Stoll, 1995), a preeminent group of scientists and educational researchers in the United States recently argued that ICT and other digital technologies were so central to the nation's future that additional data on their efficacy were unnecessary before systematically integrating these technologies into schools (President's Committee of Advisors on Science and Technology [PCAST], 1997). Such a call from this group of scientists and educators, despite calls by many for more data demonstrating the efficacy of ICT on student learning, says much about how cultural forces are often far more powerful than scientifically developed data. In the final sentence from the report, the PCAST stated, "The Panel does *not*, however, recommend that the deployment of technology within America's schools be deferred pending the completion of [a major program of experimental] research" (p. 131).

As this example illustrates, convergence is driven as much by the forces that shape societies as by research results, perhaps even more so. Gates has correctly articulated this aspect of change: "One thing is clear. We don't have an option of turning away from the future. No one gets to vote on whether technology is going to change our lives" (1995, p. 74).

Literacy within cultural contexts

Ultimately, the forms and functions of literacy as well as literacy instruction itself are largely determined by the cultural forces at work within any society (Boyarin, 1993; Diringer, 1968; Illera, 1997; Manguel, 1996; Mathews, 1966; Shlain, 1998; Smith, 1965). In the past, these cultural forces have had diverse origins. The complexity of economic structures, the forces of oppression and resistance, the dissemination of religious dogma, the essential nature of certain forms of democracy, nation building, international conflict, and many other disparate influences all have influenced literacy and literacy instruction in different eras. In the future, cultural forces will continue to define the forms and functions of literacy as well as the essential nature of literacy instruction.

Often, in the rush to develop the latest response to one literacy crisis or another, we lose sight of these historical roots. Briefly identifying some of these forces will remind us of how important it is to understand the cultural context of any period before seeking to understand how literacy functions within that context, even one that extends so far into the future as the new millennium.

The central role of cultural forces in defining the nature of literacy can be seen at one of the important starting points for reading and writing, Sumerian society during the 4th millennium B.C. As this society grew, recording business transactions and tax records became necessary for a more complex society to maintain itself. This was the probable inspiration for the development of the first cuneiform tablets in Mesopotamia (Boyarin, 1993; Diringer, 1968; Manguel, 1996) because so many of these early literacy artifacts appear to be records of economic exchanges or tax obligations.

In some cultural contexts, literacy became a way to communicate common experiences among the oppressed. This happened in 11th-century Japan when a separate writing system was developed by the women at court and Lady Murasaki wrote the first novel, *The Tale of the Genji* (Manguel, 1996; Morris, 1964). It also happened in Czarist Russia when resistance to oppression led to politically charged forms of literacy. These included *samizdat*, a secretive system of self-publication for revolutionary texts and literature prohibited by the government. This form of writing and reading developed its own symbolic representations for revolution and resistance, many of which made their way past unknowing censors into officially published works of literature. Other examples of oppression shaping the form and function of literacy include the story of the Cherokee and of African Americans in the antebellum southern United States (Cornelius, 1991; Douglass, 1993; Manguel, 1996).

During medieval times in Europe, literacy was used as a vehicle to enforce a common religious dogma in a diverse world with competing religious points of view. A literate priesthood would faithfully copy, read, and interpret common religious texts for the masses in order to assure their salvation. Holding the central texts of Christianity so tightly within a literate priesthood enabled this religion to survive across enormous distances, cultures, and time.

Forces of resistance inevitably emerged, however, largely due to the belief that individuals, not priests, ought to be responsible for their own salvation. In post-Reformation Europe, literacy became much more widespread as Luther argued the need for individuals to read and directly access religious texts on their own. Simultaneously with this resistance, printing technologies developed to enable this more individual definition of salvation and a more distributed definition of literacy.

In the U.S. and other countries, the development of democracy, based on informed citizens making reasoned decisions at the ballot box, eventually led to a widely distributed definition of literacy. It also led to the establishment of public schools charged with developing citizens who were literate and, in their literacy, might be thoughtfully informed about important national affairs.

It is clear that the cultural context profoundly shapes the nature of literacy. It is also true that the cultural context profoundly influences the nature of literacy instruction. Some time ago, Nila Banton Smith (1965) demonstrated how cultural forces at work within the U.S. regularly altered the nature of literacy instruction:

> The story of American reading is a fascinating one to pursue.... It is a story which reflects the changing religious, economic, and political institutions of a growing and progressive country.... This evolutionary progress in reading has been marked by a series of emphases, each of which has been so fundamental in nature as to have controlled, to a large extent, both the method and content of reading instruction during the period of its greatest intensity. (p. 1)

Smith described different periods of reading instruction and how each was shaped by the most powerful cultural forces of its time. These included periods where reading instruction was influenced by: religion (1607–1776), nation building and morality (1776–1840), the education of an intelligent citizenry (1840–1880), the view of reading as a cultural asset (1880–1910), the scientific investigation of reading (1910–1935), and international conflict (1930–1950). Smith's description culminated, in a prescient analysis, with a period of expanding knowledge and technological revolution (1950→).

Clearly, the cultural contexts of the future will exert a profound effect in shaping both literacy and literacy instruction. Therefore, any attempt to predict the nature of literacy and literacy instruction must begin by exploring those cultural elements most likely to influence our futures. As we do so, we need to remind ourselves how inevitably limited even this view of the next millennium is. The disparate nature of the many cultural forces described earlier makes clear how difficult it is to anticipate all the factors that will shape our literacy futures. Who can anticipate which new forces will be important in influencing literacy instruction 200, 400, 600, or 800 years from now?

Although it is impossible to anticipate which cultural forces might shape the nature of literacy instruction that far into the future, it is possible to explore those forces at work today that are likely to affect literacy instruction during more immediate time periods. Such an exploration, though inevitably speculative, may inform our thinking by providing a broad description of the direction literacy instruction might take. We believe the important cultural forces at work today that will frame the story of literacy instruction in the future include the following:

- global economic competition within a world economy based increasingly on the effective use of information and communication
- public policy initiatives by governments around the world to ensure higher levels of literacy achievement
- literacy as technological deixis

These cultural forces will frame the broad outlines of the story we all will be constructing in the years ahead, and the outcome of a number of other issues, whose resolution are far less certain, will determine how the individual lines of this story are written. Chief among these are the challenges we will face in the convergence of literacy instruction and ICT: budgetary challenges, staff

development challenges, and the challenge to use ICT to make *all* of our lives better. We will explore these issues at the end of our analysis.

Global economic competition within a world economy based increasingly on the effective use of information and communication

As we speculate about literacy instruction in the years ahead, we need to consider how the nature of work is likely to change. Literacy education is often seen as important in preparing children for life's opportunities through the nature of work we anticipate in the future (Bruce, 1997a; Mikulecky & Kirkley, 1998).

In some cultural contexts, the nature of work has been defined by one's access to land, labor, or capital. Analyses by Reich (1992) and Rifkin (1995) indicate this definition has fundamentally changed in many countries. Increasingly, work is characterized by the effective use of information to solve important problems within a globally competitive economy. Today, it is access to information and the ability to use information effectively that increasingly enable individuals to seize life's opportunities. Moreover, as networked, digital technologies provide greater and more rapid access to larger amounts of information, the efficient use of information skills such as reading and writing becomes even more important in competitive workplace contexts (Gilster, 1997; Harrison & Stephen, 1996).

Information skills such as reading and writing are increasingly necessary within all types of workplaces. Because trade barriers are falling and international trade is expanding, many workplaces are undergoing a radical transformation (Bruce, 1997a; Drucker, 1994; Gilster, 1997; Mikulecky & Kirkley, 1998). In a global economy where competition is more intense because competing companies are more numerous, workplaces must seek more efficient ways of conducting business in order to survive. Often, companies seek to transform themselves into high-performance workplaces, workplaces that are more competitive, more efficient, and more responsive to the needs of their customers. These new types of workplaces are characterized by several elements, each of which has important implications for the nature of literacy instruction.

One aspect of the changing workplace involves moving from a centrally planned organization to one that relies increasingly on collaborative teams at all levels, often with members who seldom work in the same physical space. These teams assume greater initiative for planning ways to work more efficiently and effectively. Instead of a model in which decisions emanate from the top of the organization, teams within lower levels of the organization are encouraged to identify and solve important problems that lead to more efficient means of producing goods or providing services. Companies appear to work better when the closest, most direct connections exist between customers and those who produce goods or provide services.

The change to a high-performance workplace requires organizations to value people with problem-solving skills. As collaborative teams seek more effective ways of working, they are expected to identify problems important to their unit and seek appropriate solutions. This has consequences for schools that will need to provide students with greater preparation in critical thinking, analysis, and problem solving. Students, when they leave school, will need to be able to identify central problems, find appropriate information quickly, and use this information to solve the problems they identify.

Another element in the changing nature of work is the increased value in effective collaboration and communication skills that are critical to success within a decentralized, high-performance workplace. The change from a centralized to a decentralized workplace requires these skills so that the best decisions are made at every level in an organization and so that changes at one level are communicated clearly to other levels. We will need to support the development of effective collaboration and communication skills if we wish to prepare children for their futures in a workplace where these skills are so important.

A final aspect of the changing workplace is that effective information access and use will be more critical to success. Individuals who can access information the fastest, evaluate it most appropriately, and use it most effectively to solve problems will be the ones who succeed in the challenging times that await our children. This will make informational literacy a crucial determinant of success. We must prepare our students for the effective use of new information technologies that will become increasingly available as we continue to change from an industrial to an information society.

As we consider the economic context in the new millennium and the consequences for literacy instruction, it appears that problem solving, information access, evaluation of information resources, and communication will be necessary elements in the workplace. It is likely these aspects will be increasingly important to shaping the nature of literacy instruction in the classroom. In the information age in which we live, individuals, groups, and societies will succeed to the extent they are able to access the best information in the shortest time to identify and solve the most problems and communicate this information to others.

This analysis, of course, is based on a view of economics and literacy that is liberating, not one that is oppressive. Alternative views are possible, suggesting that new technologies and literacy are deliberately manipulated for economic gain or political control (Selfe & Selfe, 1996; Virillo, 1986; see also Bloome & Kinzer, 1999), usually by those seeking to maintain and expand hegemony. Literacy typically serves those in power, not those out of power (Graff, 1981; Harris, 1989; Levi-Strauss, 1973; Shannon, 1996). Both views are probably justified because historical realities compel one to recognize that societies do not long survive without also valuing peace and justice, and societies that value peace and justice do not long survive without protecting their interests.

Regardless of how this tension is interpreted, we believe that information economies, global competition, and the changing nature of work are some of the most powerful forces driving the changes in literacy instruction. They prompt very real consequences for literacy education as we seek to prepare our students for their future. They also contribute to the increasing convergence of literacy instruction with the use of networked ICT in classrooms. These new technologies of literacy provide powerful preparation in developing the skills central to success in an information economy: accessing the best information, doing so in the shortest time, using this information to identify and solve the most important problems, and then communicating these solutions to others.

Public policy initiatives by governments around the world to ensure higher levels of literacy achievement

Governments around the world are keenly aware of the consequences of global economic competition for their citizens. They have responded by implementing public policies to raise literacy achievement in an attempt to better prepare their children for the challenges that lie ahead. Simultaneously, they have responded with initiatives to provide new ICT resources to schools. These steps taken by nations around the world are, we believe, the beginning of the convergence we anticipate for literacy instruction with networked technologies for information and communication.

Around the world, many of us see the pressure to raise literacy achievement as a national phenomenon and limited strictly to reading. In the United States it is often seen as focused solely on early reading achievement, often through greater emphasis on more systematic approaches to phonics instruction. The pressure to ensure higher levels of literacy achievement is a global phenomenon, driven largely by economic competition and a desire by governments to prepare their citizens for new economic realities. It is happening in the United Kingdom, Australia, New Zealand, Finland, Ireland, the United States, and many other countries.

Moreover, the movement to raise literacy standards is much more complex than an attempt by political conservatives and religious fundamentalists to enact a simple *back to basics* or *phonics first* approach, though these elements certainly exist in countries such as the U.S. (cf. Goodman, 1999). Even though the reading community is not often aware of it, public policies to raise literacy achievement are always a part of a larger set of educational policies. Today, these usually include efforts to infuse information technologies into the curriculum, providing additional impetus to the changing definition of literacy instruction. Many countries are rapidly implementing public policy initiatives designed to raise literacy levels at the same time they infuse information and communication technologies into their classrooms. These concomitant forces serve to foster the convergence of literacy instruction with networked ICT.

In the United Kingdom, for example, education has been identified as the top priority of the Labour government. The first white paper of this government, "Excellence in Schools," details how higher standards for literacy are to be developed and achieved in England, Wales, and Northern Ireland (Secretary of State for Education and Employment, 1997). The reason for this clearly is linked to global competition in an information age: "We are talking about investing in the human capital in the age of knowledge. To compete in a global economy...we will have to unlock the potential of every young person" (p. 3).

These standards have now been published by the U.K. Department for Education and Employment at *The Standards Site* (available at http://www.standards.dfee.gov.uk/), along with several recent policy initiatives including "The Literacy Hour" (available at http://www.standards.dfee.gov.uk/literacy/literacyhour/aboutthelitera cyhour), a "National Literacy Strategy," and a "National Year of Reading" (available at http://www.dfee.gov.uk/reading/intro.htm). For the first time, the national standards include standards in the effective use of information technologies, or IT (Department for Education and Employment, 1998). IT is also included within the National Curriculum for the first time. Finally, a National Grid for Learning was launched in 1998 to provide a national focal point for learning on the Internet by teachers and children. This important Internet resource may be found at http://www.ngfl.gov.uk/ngfl/index.html.

Similar policy initiatives are taking place in Finland. Here, the government appointed an expert committee in 1994 to prepare a national strategy for education, training,

and research in an information society. This report, (Ministry of Education, 1995) outlined the important role the educational system could play in helping Finland compete in a global information economy. It served as the impetus for a number of initiatives from the Ministry of Education, including a 3-year program launched in 1996 to teach students effective use of IT and ICT in schools. This program involves developing new teaching methods for the use of IT and ICT, connecting all schools to the Internet before the year 2000, providing new computers to schools, and providing teachers with a 5-week course in the effective instructional use of new information technologies (The Ministry of Education, Finland, 1997; R. Svedlin, personal communication, January 8, 1998).

Ireland, like other nations, also is launching two policy initiatives: a National Reading Initiative and a Schools IT 2000 initiative. The National Reading Initiative will include the appointment of a national coordinator, provision for remedial services in every school, a tripling of adult literacy funding, increased funding for remedial teachers, and a program of development for literacy-related software (Martin, 1998).

The Schools IT 2000 initiative (Department of Education and Science, Government of Ireland, 1998) is being implemented because "knowledge and familiarity with new technologies will be an important dimension of employability in the information society" (Irish Ministry of Education, 1998). Schools IT 2000 encompasses a number of policy initiatives intended to prepare children for a competitive, global, information economy. These include (a) a Technology Integration Initiative to provide more than 15,000 computers and Internet connections in 1998, with additional funds available during subsequent years; (b) a Teacher Skills Initiative to train more than 8,000 teachers in ICT; (c) a Schools Support Initiative to develop ScoilNet, an Internet site to inform and support educators; and (d) a School Integration Project to provide funding for at least 40 model schools that will demonstrate the effective use of ICT in the classroom.

Important policy initiatives are also underway in Australia. In Australia's federal system, educational policy is the responsibility of individual states. Thus, it is especially noteworthy that the national government has been actively involved in educational policy initiatives, focusing on raising literacy achievement and on integrating information technologies into the schools. National leadership on these issues demonstrates how critical they are to the nation.

In 1996, the first national survey of literacy achievement in 16 years was conducted in Australia. According to the Federal Minister of Schools, the results indicated "about a third of primary school children cannot read or write at an adequate standard" (Kemp, 1997).

As a result, commonwealth, state, and territory education ministers met and agreed to this broad principle: "That every child leaving primary school should...be able to read, write, and spell at an appropriate level" (Ministry for Schools, Vocational Education and Training, 1997). Moreover, the education ministers agreed to a set of literacy benchmarks (Department of Education, Training and Youth Affairs, 1998), and a national plan was initiated to improve literacy levels with support from commonwealth, state, and territory governments. Achievement will be measured against the national benchmarks, and results will be reported annually.

In May 1998 the federal government also circulated for comment *Common and Agreed Upon National Goals for Schooling in Australia* (Ministerial Council on Education, Employment, Training, and Youth Affairs, 1998), which included an emphasis on both literacy and IT. In particular, the document noted, "When students leave school: they should have skills in analysis and problem solving and the ability to become confident and technologically competent members of the 21st century society" (Appendix 1). Moreover, the federal government is now circulating for comment a document outlining a national strategy for becoming more competitive in a global information economy, *A Strategic Framework for the Information Economy: Identifying Priorities for Action* (Ministry for Communications, Information Technology and the Arts, 1998). This document (available at http://www.noie.gov.au/docs/strategy/strategicframework.html) outlines 10 action priorities. The second priority focuses on the role of schools in preparing children in IT: "Deliver the education and skills Australians need to participate in the information economy."

Finally, the federal government along with commonwealth, state, and territory education departments have developed a central Internet resource for educators at all levels, Educational Network Australia (EdNA). This extensive site (available at http://www.edna.edu.au/EdNA/) provides a range of information resources for children, teachers, researchers, and policy makers.

New Zealand also is beginning public policy initiatives to raise literacy achievement and to integrate ICT into the curriculum. At the end of 1998, the government announced its intent to develop a National Literacy and Numeracy Strategy to enable every 9-year-old to read, write, and do math proficiently by 2005 ("Literacy Strategy Underway," 1999). As part of this effort, the government appointed a National Literacy Taskforce to provide assistance in developing this strategy. In addition to the need to be competitive in the global economy, the impetus for this effort is the need to close the gap between good and poor readers. The 1990 Reading Literacy Study by the International Association for the Evaluation of Educational

Achievement (IEA) found a large disparity between the highest and lowest levels of reading achievement in New Zealand. In addition, New Zealand had the biggest gap in achievement between children learning in their home language and children who were not (Wagemaker, 1992; Wilkinson, 1998).

Simultaneously with these initiatives in literacy education, the New Zealand national government released a policy paper describing strategies for supporting the use of ICT in schools, *Interactive Education: An Information and Communication Technologies (ICT) Strategy for Schools* (Ministry of Education, 1998). This document defines the focus for national initiatives for ICT: building infrastructure and improving the capability of schools to use ICT effectively in the curriculum. It describes several new efforts for the national government: (a) developing an on-line resource center for schools, teachers, and children; (b) providing support for professional development so schools can plan for and implement the use of ICT more effectively; and (c) supporting model ICT professional development schools. The reason for these initiatives is, again, related to global competition:

> New Zealand schools aim to create a learning environment that enables students to develop the attitudes, knowledge, understandings, and skills to enable them...to succeed in the modern competitive economy. (Ministry of Education, 1998, Introduction)

In the United States, with a long history of state and local control over educational policies and with the recent past characterized by intense partisanship at the federal level, national policy initiatives in education have been difficult to implement. Most of the public policy initiatives for raising literacy standards have taken place at the state level. Many states recently have established standards or benchmarks, often in conjunction with new, statewide assessment instruments. Many states have also initiated polices to infuse more IT and ICT in classrooms.

At the federal level, policy initiatives have been more diffuse in origin and many have attracted bitter partisan debates. These have resulted in recent legislation such as The Reading Excellence Act (Goodman, 1999), the appointment of a National Reading Panel for Reading, and the development of Standards for the English Language Arts (International Reading Association & National Council of Teachers of English, 1996), each marked by substantial controversy.

Also at the federal level, initiatives in the areas of IT and ICT have been somewhat difficult because of various political issues. A major development, however, has been the establishment of the "Universal Service Support Mechanism for Schools and Libraries," a policy initiative known informally as the "E-rate program." This program is funded by Congress under the Telecommunications Act of 1996 and administered by the Schools and Libraries Division of the Universal Service Administrative Company (available at http://www.sl.universalservice.org/), a not-for-profit organization established by the Federal Communications Commission (FCC) for this purpose. Starting in 1998, it began to distribute annually about US$2.25 billion in financial support to schools and libraries for Internet access, based on indicators of financial need.

In addition to local and state initiatives, the E-rate program has contributed in important ways to the rapid infusion of Internet connections within U.S. K–12 classrooms. In the fall of 1997, 27% of U.S. classrooms had at least one computer connected to the Internet; in the fall of 1998 this had nearly doubled to 51%; and projections call for nearly 100% of classrooms to be connected in the fall of 2000 (National Center for Education Statistics, 1999).

Telecommunication companies are seeking to reduce the revenue stream for the E-rate program, financed largely from a surcharge to their customers. Nevertheless, it appears this program may survive the intense partisan politics of Washington, DC. What is surprising is that so many initiatives, however tortured their history, have emerged at the national level in the United States during the past 5 years. Clearly, the federal government actively seeks to raise children's performance in literacy and to provide support to schools for IT and ICT.

Many nations, aware of the need to prepare students for the challenges of a competitive global economy, are developing public policy initiatives to raise literacy standards and infuse IT and ICT into the curriculum. Although each nation approaches the issue in its own fashion, what is striking is the common effort in this direction. Especially salient are those nations with a long tradition of local control. Even in countries such as Australia and the United States, the federal governments are beginning to develop important national initiatives to raise literacy levels and prepare children in the use of information and communication technologies.

Public policy initiatives such as these, and many more that undoubtedly will follow, will affect the nature of literacy instruction in profound ways. We have only just begun to see the effects of these changes in the classroom. We believe these initiatives will contribute to the increasing convergence of literacy instruction with the use of networked information and communication technologies such as the Internet.

Literacy as technological deixis

There is also a third force we believe will be central to defining the nature of literacy instruction in the next millennium: Literacy is regularly changing as new tech-

nologies for information and communication continuously appear and as new envisionments for exploiting these technologies are continuously developed by users. It is becoming increasingly clear that we are in a period of rapid, technological change; technologies in nearly every field are undergoing fundamental change on a regular basis. This is especially true for the technologies of literacy (Leu, in press a).

It seems that nearly every day we encounter a new technology of literacy, one with which we are unfamiliar: new versions of Internet browsers, new versions of operating systems, upgrades of word-processing programs, new e-mail software, new forms of chat software, new forms of mailing list or bulletin board software, new video conferencing or telephonic software, new forms of presentation software—the list goes on and on. And consider how different this list will look only 10 years from now, let alone 100 years from now. It is clear that the technologies of literacy are changing rapidly.

To make the point another way, consider the changes to the forms and functions of literacy experienced by many students who are graduating from secondary school this year. Fifteen years ago, few students needed to know how to use word-processing technologies; 10 years ago, few students needed to be able to access the rich resources of CD-ROM technologies; 5 years ago, few students used Internet and e-mail technologies. Now, however, each of these technologies is an important part of the curriculum in many schools. One can only wonder at the dramatic changes in ICT ahead for children who begin their school careers in the future.

Leu (1997a, in press a) argued that we have entered a period of literacy as technological deixis. During this period the forms and functions of literacy rapidly change as new technologies for information and communication emerge and as new envisionments for their use are constructed by users. The term *deixis* is used by linguists and others (Fillmore, 1972; Murphy, 1986) for words such as *now, today, here, there, go*, and *come*. These are words whose meanings change quickly, depending on the time or space in which they are uttered. If we say "now" as we write this draft, it means our current moment during the end of 1998. If you say "now" when you encounter this example, it means the moment in time when you read these lines. To Gertrude Stein "A rose is a rose, is a rose," but *now* is not *now*, is not *now*; its meaning depends on the temporal context when it is uttered.

Literacy is also deictic. Both the forms and functions of literacy have regularly changed over time. This will continue into the future but at a much faster pace. As literacy increasingly becomes technological deixis, we will see greater convergence of literacy instruction with networked technologies for information and communication. The changing constructions of literacy within new technologies will require us to prepare children to keep up with these changes. Networked ICT quickly will become the best means for accomplishing this.

There are four sources for the increasingly deictic nature of literacy: (a) transformations of literacy because of technological change, (b) envisionments of new literacy potentials within new technologies, (c) the convergence of literacy instruction with networked ICT, and (d) the use of increasingly efficient technologies of communication. The first source already has been noted: The rapid changes in ICT repeatedly alter the nature of literacy. New technologies transform previous literacies, redefining what it means to become literate (Reinking, 1998).

The second source is the envisionments we construct as we use new technologies for literate acts. Bruce (1997b) noted that the impact of technology is not just a one-way street. He argued that technology changes literacy but that literacy also changes technology in what he describes as a transactional relationship. Individuals who use new technologies often envision new ways of using them and, in their envisionments, change the nature of literacy (Leu, Karchmer, & Leu, 1999). Envisionments take place when teachers, children, and others imagine new possibilities for literacy and learning, transform existing technologies to construct this vision, and then share their work with others. We see examples of these envisionments when teachers alter a more direct instructional model of technology for literacy learning into a more student-centered model (Labbo, Phillips, & Murray, 1995–1996). We also see examples of literacy envisionments when teachers develop curricular resources with Internet technologies and then share their work with others to support literacy and learning. Several Internet resources developed by teachers include the following:

- Harriet Tubman & The Underground Railroad (http://www2.lhric.org/pocantico/tubman/tubman.html), a site developed by Patty Taverna, Terry Hongell, and Patty's second-grade class at Pocantico Hills School in Sleepy Hollow, New York. This site contains an extensive collection of instructional ideas and resources for studying Harriet Tubman and her important work in the United States.
- Treasures @ Sea: Exploring the Ocean Through Literature (http://www.fi.edu/fellows/fellow8/dec98/), a series of Internet resources and experiences developed by Hazel Jobe, a Title I reading teacher in Lewisburg, Tennessee.
- Earth Day Groceries Project (http://www.earthdaybags.org), an environmental project organized around Earth Day developed by Mark Ahlness, a third-grade teacher in Seattle, Washington.

- SCORE (Schools of California Online Resources for Education) CyberGuides: Teacher Guides & Student Activities (http://www.sdcoe.k12.ca.us/score/cyber guide.html), a collection of Internet resources for individual works of literature contributed by teachers and directed by Don Mayfield and Linda Taggart-Fregoso of the San Diego schools.
- The Read In! Event 2000 (http://www.readin.org/ev2000.htm), a day set aside for exchanging literature experiences and communicating with authors over the Internet.
- Book Raps (an oz-TeacherNet Project) (http://rite.ed.qut.edu.au/oz-teachernet/projects/book-rap/index.html), literature discussion groups conducted over the Internet and coordinated by Cherrol McGhee, a teacher at the Hillview State Primary School in Queensland, Australia.
- The Looney Lobsters (http://lee.boston.k12.ma.us/d4/trav/lroot.asp), a "travel buddies" project where participating classes share and communicate about regional literature developed by Marjorie Duby.

Leu, Karchmer, and Leu (1999) referred to changing envisionments as "The *Miss Rumphius* Effect" because teachers, like the title character in the book by Barbara Cooney (1982), envision a better world and then act on that envisionment, regularly transforming Internet technologies and constructing new instructional worlds for literacy and learning.

Transformations of literacy because of new technologies and envisionments of new forms of technology are the primary sources for the increasingly deictic nature of literacy. In addition, two factors increase the pace at which change takes place: convergence and the use of increasingly efficient technologies of communication. Convergence speeds up the rate at which literacy changes, so that, as more and more classrooms enter the world of networked ICT, the changes to literacy will occur at a more rapid rate. Thus, while the increasingly deictic nature of literacy contributes to convergence, convergence also contributes to deixis. The interaction between these two phenomena increases as literacy instruction takes place more often within networked ICT. This interaction will increase the rate at which changes to literacy occur.

New technologies for information and communication permit the immediate exchange of even newer technologies and envisionments for their use. This also increases the already rapid pace of change in the forms and functions of literacy, increasing the complexity of the challenges we face as we consider how best to prepare students for their literacy futures. Thus, the already rapid pace of change in the forms and functions of literacy are exacerbated by the speed with which new envisionments and new technologies are communicated (Leu, in press a).

We believe the deictic nature of literacy will present important challenges to all of us in the years ahead. As we seek to prepare children for their literacy futures we must recognize that the literacies of today will not be the literacies of tomorrow (Leu, in press b). Rapidly changing definitions of literacy will alter our work in important ways. For example, literacy will not be measured simply by our ability to comprehend, analyze, and communicate; instead, we expect literacy will be increasingly defined around our ability to adapt to the changing technologies of information and communication and our ability to envision new ways to use these technologies for important purposes.

The deictic nature of literacy will be an important factor moving us toward the convergence of literacy instruction and networked technologies for information and communication such as the Internet. These technologies will permit us and our students to keep up with the new technologies and the new literacies that will appear. They also will provide us with opportunities to learn from others about how best to use these technologies in our classrooms.

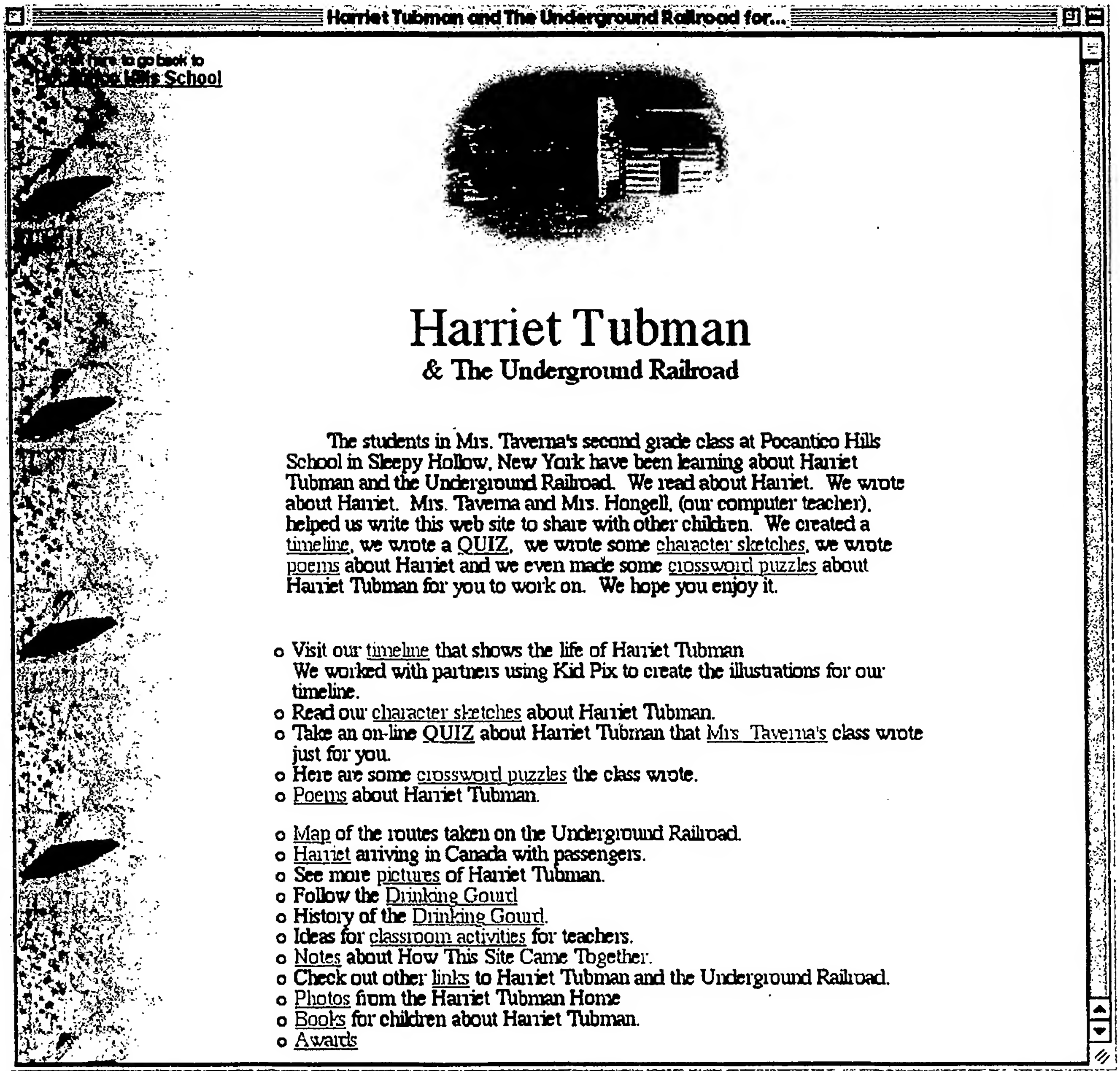
What will literacy instruction be like in the future?

Understanding the three cultural forces at work today, as explained in the previous section, helps us develop informed speculation about the nature of literacy instruction in the years ahead. Global economic competition, public policy initiatives by governments around the world to ensure higher levels of literacy achievement, and literacy as technological deixis make certain consequences more likely than others for literacy education in the future. Two consequences are clear from this analysis: (a) literacy instruction will be even more important than it is today, and (b) literacy instruction will undergo fundamental change as it converges with the use of ICT.

Increasingly, life's opportunities will be defined by one's ability to locate useful information quickly to solve problems and then communicate the solutions to others, as mentioned earlier. As a result, many nations are setting higher standards for literacy achievement and taking aggressive policy actions to achieve these standards through literacy instruction. It is likely this movement will become a continuous process as countries compete, driven by economic and political needs, to prepare children for a global economy based increasingly on information.

As some countries achieve gains in literacy achievement, others will seek to meet or exceed these achievements in order for their citizens to compete globally. In each country, this process will result in standards that are

Figure 1


Harriet Tubman and The Underground Railroad for...

here to go back to
Hills School

Harriet Tubman

& The Underground Railroad

The students in Mrs. Taverna's second grade class at Pocantico Hills School in Sleepy Hollow, New York have been learning about Harriet Tubman and the Underground Railroad. We read about Harriet. We wrote about Harriet. Mrs. Taverna and Mrs. Hongell, (our computer teacher), helped us write this web site to share with other children. We created a timeline, we wrote a QUIZ, we wrote some character sketches, we wrote poems about Harriet and we even made some crossword puzzles about Harriet Tubman for you to work on. We hope you enjoy it.

- Visit our timeline that shows the life of Harriet Tubman
  We worked with partners using Kid Pix to create the illustrations for our timeline.
- Read our character sketches about Harriet Tubman.
- Take an on-line QUIZ about Harriet Tubman that Mrs. Taverna's class wrote just for you.
- Here are some crossword puzzles the class wrote.
- Poems about Harriet Tubman.

- Map of the routes taken on the Underground Railroad.
- Harriet arriving in Canada with passengers.
- See more pictures of Harriet Tubman.
- Follow the Drinking Gourd
- History of the Drinking Gourd.
- Ideas for classroom activities for teachers.
- Notes about How This Site Came Together.
- Check out other links to Harriet Tubman and the Underground Railroad.
- Photos from the Harriet Tubman Home
- Books for children about Harriet Tubman.
- Awards

An example of a literacy envisionment: Harriet Tubman & The Underground Railroad (http://www2.lhric.org/pocantico/tubman/tubman.html), developed by Patty Taverna, Terry Hongell, and Patty's second-grade class in Sleepy Hollow, New York

regularly raised higher and higher, with standards in the future far exceeding those of today. Achieving higher standards of literacy will become a continuous process, not a single event, as countries seek to prepare children for constructing a better future. We expect that students in the future will achieve levels of literacy that are difficult to imagine today, and that definitions of literacy will be different from those now in use.

We also should note that there are alternatives to this vision of the increasing importance of literacy and literacy instruction. One might argue that digital, multimedia technologies of information and communication will make

reading and writing less important, not more important. According to this argument, viewing images, video, and animation while listening to audio will replace the need to acquire information from written text. Although there can be no doubt that multimedia information sources are quickly replacing information previously presented solely in traditional text, we believe that reading traditional text will continue to be a prominent aspect of literacy for two reasons: speed and information management. We can read text far faster than we can listen to or view the same information presented with audio or video technologies. Moreover, databases are more effectively constructed and efficiently accessed around textual information, not images, sound, or video. In a world where speed, retrieval, and comprehension are central to success, reading traditional text is likely to become more important, not less.

Writing also will remain important in our literacy futures for similar reasons. We can acquire information faster by reading a written text than by listening to a spoken text. Also, written messages may be stored in a manner that permits faster retrieval when they are needed. To further this point, consider the continued attempts to develop technologies that accurately convert speech to text. The enormous effort devoted to this holy grail of information technology provides compelling testimony to the continuing importance of composing written text. Certainly the nature of compositions will change, but written language will continue to be significant.

Although reading and composing will continue to be important in our futures, new technologies for literacy will regularly appear and be integrated into the literacy curriculum. As we have seen, developed nations are taking crucial, initial steps to integrate technologies of information and communication into the curriculum. These beginning steps will rapidly accelerate as nations seek the best ways to educate their citizens. The same forces that drive rapidly increasing standards for literacy will drive teachers and children to learn how to use these new technologies for literacy at higher and higher levels of proficiency.

There are, however, alternatives to the vision of the increasing use of ICT in schools. Some, for example, have argued against the need for these technologies in education (Oppenheimer, 1997; Roszak, 1994; Stoll, 1995) or for literacy (Birkerts, 1994; Rochlin, 1997). Many of these skeptics point to the lack of data on the learning gains ICT generate.

Although data do exist on the efficacy of digital technologies for literacy and learning in several meta-analyses of older technologies (Bangert-Drowns, Kulik, & Kulik, 1985; Burns & Bozeman, 1981; Kulik & Kulik, 1991; Kulik, Kulik, & Bangert-Drowns, 1990) and in preliminary studies of newer, networked technologies (Follansbee, Hughes, Pisha, & Stahl, 1997), we believe the need for experimental data is, in some sense, a moot issue. Leu (in press a) makes a simple argument against those who do not believe sufficient evidence exists to invest heavily in the use of ICT technologies in classrooms:

> Who needs hard data on the beneficial outcomes of new technologies for literacy or learning when it becomes clear these technologies, or their related successors, will be the technologies of our children's futures? While some would argue we must wait until compelling data are available; I would argue that to wait for these data will make them useless since new technologies will have appeared by then. If it is already clear that workplaces and higher education have become dependent upon networked information environments such as the Internet, who has the luxury of time to wait for a consistent body of research to appear, demonstrating their effectiveness? Research might be better spent exploring issues of how to support teachers' efforts to unlock the potentials of new technologies, not demonstrating the learning gains from technologies we already know will be important to our children's success at life's opportunities. (Reprinted by permission of Lawrence Erlbaum Associates, Inc.)

Thinking about what students will learn

There are other changes in our instructional futures that address the question about *what* children will learn about literacy in the future. We expect that instruction will pay greater attention to the literacies of information, problem identification, critical thinking, strategic knowledge, effective communication, speed, and continuous change.

Although literacy instruction often has emphasized narrative literary forms, pressures are likely to build to include more informational experiences earlier in the literacy curriculum. As nations seek to prepare children for their information futures, it would not be surprising to find greater emphasis on the literacies of information.

Along with this shift, it is likely that greater attention will be devoted to supporting the literacies of problem identification to help students answer questions such as the following: What are interesting and important problems to explore? Why are these problems important and not others? What obligations do I have to others in the way I frame problems to be explored? A major part of our informational world will be the ability to define problems whose solution will make our lives better.

As access to information networks expands, the ability to critically evaluate the enormous amounts of information that are increasingly available becomes paramount (Enochsson, 1998). What is the best information for my purposes? How can I tell? Has this person reasoned well? How should I approach this problem? Is the information that I provide clear ? How will others interpret the information I provide? In a networked world where anyone

can publish anything, it will become more important to know how to evaluate the accuracy of information.

As information resources become more complexly networked, strategic knowledge will become an even more critical part of our literacy curriculum than it is today. Browsing, database, and search technologies that regularly change will require greater strategic knowledge than is required within more limited and static traditional texts. Students will continually need to develop sophisticated strategies to successfully navigate information networks that appear to be expanding exponentially: How can I locate the information I require? How can I publish my information so that others will be able to locate it when they require it? Becoming literate will require our students to acquire new strategies for obtaining and publishing information within the complex and continually changing contexts for information.

Because we will be exchanging vaster amounts of information, effective communication skills will become increasingly important, too. If someone has developed a solution to a problem, he or she will want to communicate the information in the most effective manner. And, as we communicate more often with colleagues from other cultural contexts around the world, we will need to continue to develop culturally sensitive ways of communicating. Students will need to ask themselves, How can I share this information most effectively with others? What backgrounds do the recipients of my message possess? How will this influence the manner in which they interpret my information?

In a world of vast information resources, the speed it takes to acquire information will become an important measure of success within various technologies. Quickly finding, evaluating, using, and communicating information will become instructional issues: How can we help children learn to work with various information technologies efficiently? Which strategies, in which contexts, for which tasks allow us to acquire, use, and communicate information most efficiently? These and related questions will become significant in our instructional futures.

Finally, how can one keep up with the literacies demanded by the rapidly changing technologies for information and communication that will be a part of our future? It may be that the ability to learn continuously changing technologies and new envisionments for literacy may be a better target than literacy itself (Leu, in press a). What is clear is that literacy will no longer be an end state; instead, it will become a continuous learning process for all of us. *Being literate* will be an anachronism. *Becoming literate* will be the more precise term, since each of us will always be acquiring new literacies as new technologies for literacy regularly appear.

Thinking about how students will learn

In the previous section are predictions about the *what* of literacy instruction. Another central issue is *how* children will learn about literacy. One could argue for an image of instruction based on individuals' acquiring the new literacies through a direct instructional approach. Digital technology has been especially well suited to providing direct instruction, with individuals progressing as they are able to demonstrate performance on specific skills. This has been true from the time of Atkinson and Hansen (1966–1967) to the present-day technologies for Integrated Learning Systems. These approaches to literacy instruction will probably always be with us. However, we doubt that these approaches will ever play a major role in literacy education. We see a very different view of the future.

We expect social learning strategies will be central to literacy instruction in the future (Kinzer & Leu, 1997). Increasingly, children will be supported in learning how to learn about literacy from one another (Labbo, 1996; Labbo & Kuhn, 1998). As networked information resources become more extensive and complexly structured, and as ICTs continue to change with some frequency, no one person can be expected to know everything there is to know about literacy. The technologies of literacy simply will change too quickly and be too extensive to permit any single person to be literate in them all. Each of us, however, will know something useful to others. This will distribute knowledge about literacy throughout the classroom, especially as students move above beginning stages. One student may know the best strategies for publishing a report on the network while another may know the best way to use a new video conferencing technology. We will need to support children in learning how best to learn from others.

Because social learning strategies will become increasingly important, we believe there will be more collaborative learning experiences than exist in many of today's classrooms. Collaborative learning experiences such as cooperative group learning, Internet Workshop, Internet Project, and others still to be envisioned will provide opportunities for children to learn from one another strategies for using information resources effectively as they learn about the world around them (Leu & Kinzer, 1999; Leu & Leu, 1997, 1999). Helping children learn effective literacy strategies from one another will prepare them for their futures where workplaces require these collaborative learning skills.

Collaborative learning experiences such as these will transcend national boundaries. New technologies for information and communication allow us to look beyond our individual classrooms, make new connections, and see the world in new and more powerful ways. It is this

type of world, where we all are more closely connected, that we need to keep in mind as we prepare our students for their literacy and learning journeys.

Within these contexts for literacy learning, where social learning strategies are dominant, we will need to pay special attention to children who rely solely upon independent learning strategies. In the past, independent learning strategies have been favored in school classrooms; in the future, this type of learning may disadvantage children where collaborative strategies become essential for keeping up with changes in the technologies of literacy.

Finally, it is likely we will see the eventual convergence of literacy and learning in subject areas. We already have argued for the convergence of literacy instruction and networked technologies for information and communication such as the Internet. We think we will likely see a similar convergence of literacy and learning in subject areas. As information resources are networked and as literacy becomes more tightly defined around ICT, it becomes more difficult to separate subject-area learning into separate categories and time periods during the day. It also becomes more difficult to separate literacy learning from subject-area learning. Increasingly, literacy learning will take place within the information contexts whose boundaries disappear in a connected world of information.

Challenges to change

We have described our view of the cultural forces that are likely to the shape the nature of literacy instruction in the next millennium. We also have described the broad outlines of the story we expect to see. The details of this story, however, will be determined by our collective responses to several important challenges to change.

Change is always difficult, and educational systems are widely recognized for being resistant to change (Cuban, 1986; Luehrmann, 1985), especially changes in technology use. We expect three important challenges to have the greatest impact on literacy instruction in the future: (a) challenges related to budget considerations, (b) challenges related to professional development, and (c) challenges related to using technology in ways that will make *all* of our lives better.

The budgetary challenge

Central to our vision of the future is an important budgetary challenge all countries must face: Never before have educational systems had to deal with the expenses of their literacy futures. The capital investments that are required in a world of continuously changing technologies of literacy may slow the vision for literacy instruction we describe. This will be a special challenge for schools and nations who have extraordinary financial pressures, where the important issue for a child is where the next meal will come from, not how to obtain access to the Internet.

As we seek to meet this challenge for all children, we also should recognize that the common view of these expenses may not be correct—that budgetary considerations have to do with purchasing computers for use in school. This is not the area that poses the greatest budgetary challenge. Hardware costs continue to fall at a rapid rate. Several brands of computers are currently available, advertised weekly in newspaper flyers, that provide a monitor and color printer and a configuration including a 3 gigabyte hard drive, a 400 MHz processor, 32Megs of RAM, a 32x CD-ROM drive, a high-density floppy disk drive, and a 56K modem, all for less than US$600. We expect these costs to continue to decline or to stabilize but offer more features and speed.

A more difficult budgetary challenge is increasing or reallocating instructional supply budgets to provide necessary software, monthly telephone/cable/Internet provider connection charges, printer ink and paper, diskettes for each student, and maintenance costs. Current instructional supply budgets are limited and, in favored school systems, must purchase everything from writing paper to classroom and library books, transparencies, photocopy paper, manipulatives, finger paint, and other instructional items. Without increased supply budgets to account for technology-related needs, computer hardware might well be available but remain unused. All schools will encounter difficult decisions as they decide how best to allocate limited instructional budgets as new technologies continue to appear and merge with current instructional tools.

Issues related to infrastructure, in developed as well as developing nations, also provide a challenge in an era where budget trade-offs must be made to allow for needed capital expenditures. This is true for even the most advantaged nations. In the United States, for example, a recent State of the Union Address acknowledged that "too many of our schools are so old they're falling apart, or so over-crowded students are learning in trailers" (Clinton, 1999); there are estimates of a required US$100 billion to address deferred maintenance in U.S. schools (e.g., see Loveless, 1996); and principals receive questions about the relative value of expenditures on technology while children are being asked to each bring one roll of toilet paper or a large bottle of liquid soap to their school in order to help out with the supply budget (B. Ide, personal communication, January 15, 1997).

Clearly, the budgetary challenges are immense as we move toward merging new technology into changing

definitions of literacy. The 1997 PCAST report suggested that US$13 billion be spent annually (corrected to reflect 1996 dollars) for technology-related expenditures in U.S. K–12 schools. Will schools and nations allocate the necessary resources to meet expenses such as these? The answer is uncertain. There is, though, some indication that many countries are beginning to recognize the costs of raising standards and infusing ICT within the curriculum. The international reports, detailed previously show the political will is developing to provide the necessary funds. For many nations, there is a collective realization that it is simply more expensive, in the long term, if the budgetary challenge is not met in the short term.

The professional development challenge

As in all educational endeavors, a committed, knowledgeable teacher is the most instrumental factor in effective instruction. This will be especially true as new technologies for information and communication regularly appear and converge with literacy and literacy instruction (Leu et al., 1998). The repeated changes we envision in the nature of literacy instruction will require continuous staff development to support teachers in the effective use of ICT. Never before have we been faced with the professional development needs that will occur in our future. Will we be able to continuously support teachers when the definition of effective literacy instruction regularly changes?

The challenges will be enormous. Consider, for example, the results of a recent U.S. survey where only 1 in 5 full-time public school teachers reported feeling well prepared to integrate educational technology into classroom instruction (U.S. Department of Education, 1999b). Moreover, U.S. schools planned to spend only 20% of the amount recommended by the U.S. Department of Education for staff development with technology (CEO Forum, 1999). Districts are spending only about 6% of their technology budgets on staff development as opposed to the recommended 30% (U.S. Department of Education, 1999a).

We also need to keep in mind that this commitment to support staff development must be both substantially larger than it is today and also continuous. We have argued that literacy can be viewed as a deictic term. We feel that a similar argument can be made for literacy instruction. New approaches as well as new content will emerge regularly as new technologies for information and communication appear. We are just beginning to see some of these changes, changes that will repeatedly occur in our futures.

Perhaps an even greater aspect of the challenge to support teachers in the effective use of ICT will be the response of teacher education programs within universities and colleges. Teacher education *must* begin to include the new literacies of networked information and communication technologies within methods courses. Most important, those of us in reading and literacy education must begin to lead the way in these efforts, bringing our special insights about literacy education to these new contexts for literacy and learning (Leu, in press c). Looking at the current situation one cannot be especially sanguine. Few teacher education programs currently provide preparation in technology use, and many that do provide it as an isolated course, seldom within reading or literacy methods courses. As a Web site report from the National Council for Accreditation of Teacher Education (NCATE, 1997) noted, "Not using technology much in their own research and teaching, teacher education faculty have insufficient understanding of the demands on classroom teachers to incorporate technology into their teaching." The recent CEO Forum report (1999) also noted that only half of the states in the United States require computer education for licensure. Of these, only two (North Carolina and Vermont) require students to demonstrate their ability with technologies within a portfolio. Unless we begin to rethink the commitment we have to staff development and teacher education, our ability to prepare children for the literacies of their future will be severely limited.

Literacy instruction used to mean a lecture-based approach about instructional procedures merged with a didactic textbook (at the preservice and inservice levels), and a generally controlled, largely skills-based approach at the reading acquisition stage for children. Now, literacy instruction at all levels—Pre–K through college—means incorporating a much more authentic and learner-centered approach. In the future, with the aid of interactive, multimedia technologies, it will come to mean even more learner-based instruction, with learners controlling their own destinations to achieving their goals.

Using technology in classrooms poses special challenges to teachers, beyond those normally seen when a new curriculum, textbook, or approach is attempted. Usually, a change in curriculum requires that the teacher learn the new material and how to use it. Little else need change, however: The teacher is still the expert in the classroom, and instruction proceeds at the direction of the teacher. With the influx of a computer and an Internet connection, however, it is likely that many children will be more sophisticated than their teacher in using these technologies. Further, use of Internet and hypermedia environments makes it possible for children to guide their own learning as their needs and interests are piqued, and to raise unanticipated questions that the teacher might not be able to answer.

A shift from teacher as all-knowing expert in a teacher-centered classroom to participant/facilitator in a student-centered classroom can be threatening, yet it is necessary if optimal uses of technology are to occur. For example, Honey and Moeller (1990) found that high-technology use teachers had student-centered beliefs and demonstrated these beliefs in their classroom practices. Low-technology use teachers had more teacher-centered beliefs, but they also stated a personal fear of technology, especially in terms of how technology might diminish their authority.

Professional development programs will need to address teachers' instructional beliefs and philosophies as well as their knowledge in technology use (Leu & Kinzer, 1999; Reinking, Labbo, & McKenna, 1997). Most important, teacher education and staff development will have to begin to model the technologies of literacy in the manner in which they present information (NCATE, 1997). This is the approach taken recently in work completed at Vanderbilt University by Kinzer, Risko, and their colleagues (Kinzer & Risko, 1998; Kinzer, Singer Gabella, & Rieth, 1994; Risko, 1995; Risko, Peter, & McAllister, 1996) using multimedia, cased-based instruction. This approach, regularly extended to new technologies as they appear, will provide an important solution to the challenge of classroom integration.

The instructional resources used in teacher education programs are likely to change in the future. We see this taking place at a few institutions now as some textbooks used in teacher education programs are beginning to provide more current authentic experiences through videotapes, World Wide Web sites, and suggested Internet uses, and as calls occur for integrating technology within textbooks and other instructional materials (e.g., see Labbo & Reinking, 1999). They are also beginning to incorporate listservs where preservice teachers from across the United States can speak to peers who are reading the same textbook and grappling with similar issues related to their emerging knowledge about literacy instruction. Even more profound changes in the forms of information presented during teacher education will need to take place, however, if we hope to prepare teachers within the new technologies of literacy.

Preliminary evidence (Murphy & Camp, 1998; Prestidge, 1998; Williams, Goldman, Singer Gabella, Kinzer, & Risko, 1998; Williams Glaser, 1998) suggests new technologies can be effective during teacher education and staff development efforts. We expect that preservice and inservice education will continually incorporate information and communication technologies into instructional practice and will do so in ways that go beyond simple use of technology in professional development to teaching preservice and inservice teachers how to integrate technology into their curriculum. This will be essential if we expect to begin to meet the ever-changing challenges of professional development and to address calls from various powerful interest groups who are making recommendations that "hiring standards for teachers and administrators should include technology integration proficiency by fall 2000 and they should be mandatory by 2002" (CEO Forum, 1999).

The challenge to make all of our lives better

Internet and related technologies are often viewed as facilitating personal and collective freedom. For example, writers can post any message without being censored, thus facilitating creativity and the free movement of ideas. Learners have access to unrestricted information in ways never available to them in the past. However, these liberating features of technology also have given rise to concerns about safety issues in classrooms, as children can encounter inappropriate World Wide Web sites either on purpose or by accident. Thus, although hypertext and Internet environments are beneficial in addressing issues of background knowledge and access to information, challenges to such freedoms are being raised. For example, Bloome and Kinzer (1999) have pointed out that although filtering software that can restrict access to sites deemed inappropriate exists, these restrictions reify power relations between teachers and learners, run counter to the learner-centered classrooms that are increasingly advocated, and raise issues of freedom and censorship that will need to be resolved.

Issues of privacy will also come to the fore in the new millennium as in no other time in our past. For example, a recent computer chip announced by Intel sparked protests and calls for a boycott of all Intel products from consumer advocacy and privacy groups. This outcry followed Intel's announcement that the Pentium III chip will by default transmit its unique serial number (and thus track users) internally and across the Internet. Even if consumers turn this feature off, it turns itself back on each time the computer is restarted ("Tattletale Chip," 1999). Such tracking of personal computer use and general privacy issues surrounding e-mail and other information transmitted and available to third-party monitoring have raised legitimate concerns from advocacy groups and also have energized critics who wish to slow down computer implementation in our schools (and, perhaps, in our society in general).

An additional challenge to making all our lives better concerns issues of equal access to information and to the technology that allows such access. We note that there is still a large discrepancy between groups who have access to information and communication technologies and groups who do not. This takes place on multiple

levels: nations who are unable to afford the costs of ICT for their children, cultural groups within a nation who do not share in the access to ICT, families who are unable to support children at home with ICT, exceptional populations at schools who may have limited access to ICT, and even individual children within classrooms containing ICT who sometimes have more limited access than others, often in ways that are not always visible (Leu & Leu, 1999). Technology has the capability to make *all* our lives better—but only if persons in positions of power and those who have policy-making capabilities ensure that issues of access and equity are addressed.

One of the subtle, but important, ways in which access may be denied is through linguistic or cultural dominance by nations who dominate networked information resources (Leu, 1997b). In the past, languages and cultures have been dominated by nations possessing superior military and economic power. In our ICT futures, the potential exists for languages and cultures to be dominated by nations possessing superior information resources and vehicles for communication. We already see this happening: Currently, the vast majority of Internet sites and Internet traffic takes place to and from locations in the United States. Will this eventually result in our global village speaking only one language, thinking only within one culture's view of the world, accessing information shaped by only one reality? One worries about the consequences of globally networked information resources for the diversity that defines our world. Will we lose the rich heritage of diverse languages and cultures that characterize our world, permitting varied and unique interpretations of the reality we inhabit? Will the Internet mean that English will become the only language of international communication? Will the Internet be a vehicle for the dominance of U.S. popular culture? One hopes not, but the signs are already becoming clear that we may quickly lose our linguistic and cultural diversity if we all inhabit the same information and communication space on the Internet.

An alternative vision of our world is possible. It is possible to support equal access to the new forms of literacy in our futures. It is possible to use ICT to develop richer understandings of the diverse world in which we all live. It is possible to use these new opportunities for literacy education to bring us together in ways that have never before happened. The technologies of information and communication possess special opportunities to help everyone better understand the unique qualities in each of our cultural traditions. No other instructional resource available in our classroom has ever been as rich in its potential for developing an understanding of the diverse nature of our global society. The question is whether we have the vision and the will to accomplish this.

There are some indicators that lead us to anticipate that access will become more equitable in the future. Each time there is a price drop in hardware more people are able to afford computers. Commitments by churches, public libraries, community centers, and schools that are making computer labs available to parents and children after hours are extending access to traditionally disadvantaged groups. Such trends, we feel, will continue, as will public policy initiatives to provide greater equity. Just as public education was thought to be a necessary prerequisite to a better quality of life, which led to a guarantee of education for all, policy makers are beginning to realize that access to technology will be a prerequisite to quality of life and employment opportunities. Whether a guarantee of access to technology for all will occur remains to be seen, but we do feel that availability in school classrooms will become common. Thus, even though the challenges noted earlier (and others that we are not able to envision) will be with us for some time, we feel confident that they will be met; the major cultural forces noted in the opening sections of this article will result in increased uses of technology in all aspects of literacy.

Final thoughts

We have attempted to describe the future course of literacy instruction by presenting a broad outline of the direction in which we appear to be heading—the convergence of literacy instruction with the Internet and other networked technologies for information and communication. We worry greatly that the literacy research community has not paid sufficient attention to the profound changes taking place in the touchstone of our field. We worry that those of us who have developed our research careers around the book may be the last to respond to the fundamental changes taking place in our world. To continue to ignore these changes will severely limit our ability to support teachers and children on their important journeys.

We are certain the page-by-page details of our story will change as the years go by, but we hope the broader outlines of this work will invite colleagues to expand their conceptions of our literacy future. We will have succeeded to the extent this article initiates investigations about how best to integrate the Internet and other ICT within literacy instruction. We are convinced a central issue in our future will be how best to integrate the continually changing technologies of literacy into classroom instruction.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

What will classrooms and schools look like in the new millennium?

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Who will be in these classrooms?

We have witnessed vast change in the student population of schools and classrooms in the last 50 years. Because people can move easily—physically and electronically—across state, national, and international boundaries, many of our schools, particularly in small but growing cities in the United States (e.g., Austin, Texas; Salt Lake City, Utah), are diverse in regard to ethnicity, social class, socioeconomic status, and language use. These trends in diversity of student populations will continue. Our teaching and administrative population will also become more diverse, although those changes will be slow. More dual-language speakers will enter the teaching work force because universities, administrators, and school boards someday will recognize the need for teachers to possess language skills that generate opportunities for all students to learn (cf. Valdés, 1998).

As diversity becomes a norm in our schools, we initially may see less and less tolerance for difference. Although I have observed kids of many colors and cultures "kickin' it," as they would say, I have also noted a focus on ethnicity and color that, when not framed by a critical perspective on difference and oppression, suggests divisiveness and intolerance, a struggle over material resources. My concern certainly is fueled by recent hate crimes committed by relatively young people throughout the world, but it is also sparked by the comments that I routinely hear from the people with whom I work, comments that highlight difference and that position some people as lacking (e.g., "Those Croatians almost seem white." "There's the ESL bus.").

Despite my concern for the attitudes regarding difference, I feel hope for the skills and knowledges that students will have in the future. Students of the future will possess different skills and ways of knowing the world, most of which will be shaped by their access to information technologies. While not all of these skills and knowledges will be positive, they will prepare youth—perhaps more so than adults—to acknowledge the challenges of new times (cf. Luke & Elkins, 1998). Youth may have a better sense than adults about the changing landscapes of new times, even if they do not necessarily possess the requisite skills for taking on the challenges. We should listen to what kids are saying and watch what they're doing with their own time (cf. Alvermann, 1998) as we think about the changes in our schools and classrooms.

Even as I speculate that youth will have different and positive skills and knowledges, it is important to acknowledge issues of *access*: My daughter will grow up with a computer, but the youth with whom I work will only have access to a computer and the Internet if their schools, community centers, or libraries provide such access. They will have access to other equally influential media images and information devices, but the difference between being and not being online may be a deciding factor in the question of who has and who does not in our world of the future.

Another change that we may see in regard to the *who* of schools and classrooms revolves around parent and community involvement. As more and more parents and communities become dissatisfied with schools, we will see parent and community groups stepping forward to claim a voice in how their chil-

dren are educated. Moll and Gonzalez (1994) detail a number of research projects in which parents and community organizations are an integral part of students' learning. While this change has great potential, particularly in regard to service learning opportunities for youth, it may also have negative potential if the parent and community groups who step forward are those who already possess privilege and power in social settings, and if they use their privilege and power to stamp down difference and to shut down possibilities for change.

Why will we be teaching?

In a changing world, one in which borders are shrinking as information flows unchallenged and unassessed across national and international boundaries, we must think carefully about our goals for literacy teaching. We should teach kids to read and write and hope that they can navigate a "complex, diverse, and sometimes dangerous world" (Commission on Adolescent Literacy, 1999). We must also teach youth how to use reading and writing to construct a just and democratic society. Unfortunately, as Bloome (in press) has argued, we do not have a clear vision of what it means to read and write in a just and democratic society. Literacy educators of the future need to construct a vision of reading and writing for democratic society and teach young people ways that they can participate in the construction of a society in which difference is valued and used in productive ways.

What, how, and where will we teach?

Because we will be striving to teach for a just and democratic society, we will need to broaden our sense of what it means to be literate, which suggests that in schools of the new millennium we will teach *literacies*. We will make more use of multiple forms of representation as alternative ways for students to make and communicate meaning (cf. Eisner, 1994). As we teach print literacy, we will want to draw from the different literacies that students bring to school learning (cf. Moje, in press). We will also need to teach youth about literacy *practices*, or the socially situated beliefs, values, purposes, and actions that shape how and why people use literacy. Thus, in addition to teaching cognitive processes, strategies, and skills of both traditional print literacies and the new literacies that are demanded by a changing world, we will also be teaching students to be *metadiscursive* so that they understand how different literacies and discourses are used to achieve particular purposes in particular social and cultural settings (cf. New London Group, 1996).

To accompany the teaching of new literacies and literacy practices, we will be using more project-based pedagogies (cf. Goldman, 1997; Mercado, 1992) to teach our students different kinds of literacy skills such as the specialized information-gathering and navigating skills required for surfing and searching electronic learning technologies. These skills will be at the center of content learning, as the information associated with content (e.g., names and dates in history courses) takes a secondary position to the knowledge and skills necessary for accessing, synthesizing, and using such information. Even service positions in new times will require the sophistication of electronic searching and synthesizing skills, and businesses and industries will advocate for the teaching of such skills (Hull, 1998). Our teaching in the future will need to focus not just on such skills but also on the practices that accompany them. We will need to teach students to ask questions about whether and how these skills might be used to privilege some and oppress others.

Finally, service learning activities will be used as a way to take students' projects into the community so that students will learn both to navigate multiple discourse communities and to take action in the world outside of school. As more and more students at all achievement levels report feeling disconnected from the world in the confines of a school in which the learning seems contrived, community-based projects will increase motivation and reshape schools of the future.

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One night a few weeks ago a local television meteorologist predicted that the weather the following day would be "partly cloudy with unseasonably warm and spring-like temperatures." The following night he offered a sheepish apology to his faithful viewers who had been caught without coats and umbrellas when a cold front unexpectedly arrived much earlier than he had anticipated. "After ali," he explained "the weather is a system of easily understood component parts, but the system is chaotic, driven by strong forces that subtly change how the component parts interact." Predicting the future of literacy instruction has an even less likelihood of accuracy than does forecasting the weather. On one hand, predictions that are too ambitious tend to read like science fiction, a *Brave New World* (Huxley, 1950) that serves more as a cautionary tale of technology gone awry than as a vision of the future that ignites our collective imagination. On the other hand, predictions that are too modest tend to read like a mundane laundry list of potentialities that may be easily within our reach but are not especially desirable because they do not offer an inspiring vision or delineate an appropriate direction.

In attempting to make reasonable and informed predictions about what literacy instruction is likely to look like in the next millennium, I take under consideration a dynamic system that is sometimes as chaotic and unpredictable as the weather, the institution called school. Avoiding descriptions of an unreachable Utopia that have no historical or pedagogical heritage, my educated guesses grow from speculation about the potential educational applications of technological developments that are emerging in other fields such as entertainment or business, and potential trends in technology-related educational professional development. I begin by describing three computer-related transformations for literacy teaching. The first transformation briefly recognizes the relationship between new digital genres and cognition. The second transformation begins to explore the role of new hardware and software design components in fostering supportive learning environments. The third transformation celebrates the potential of home-school digital connections. I close with a few comments about the teacher's role in future classrooms.

• *New digital genres will promote transformed literacy learning and instruction.* When viewed from a digital perspective, traditional conceptions of genre will be stretched to accommodate new discourse forms (e.g., e-mail, Web sites, games, simulations). Additionally, traditional notions of genre will be redefined through the electronic transformation of established discourse forms (e.g., picture storybooks accessed through interactive multimedia CD talking books; informational text presented in a hypermedia format). Underlying these reconceptualizations of genres as digital is the consideration of how reading on the computer is different from reading print. In the future, it will be clear that children engage in unique cognitive and motivational processes when meaning is digitally mediated through multimedia forms. It follows that literacy instruction will include helping students learn how to negotiate digital meaning by utilizing supportive features of software and by learning how to take a critical, analytical stance to digitally mediated communicative forms.

• *New hardware design compels transformed learning environments.* Teachers of tomorrow, like teachers of yesterday, will take into consideration various social, psychological, motivational, pragmatic, and technological factors in creating and managing an appropriate learning environment. Creating an inviting classroom environment will be easy to accomplish because the classrooms themselves will be intelligent, inlaid with computers that are voice and touch sensitive. Affordable, thin computer monitor panels will hang on walls in place of chalkboards and will also serve as literal desk and table tops. The larger screens will enable teachers to demonstrate the forms and functions of multimedia digital literacy. For example, after dictating and discussing a morning message on a large wall screen, teachers may download individual copies onto each child's desktop screen to facilitate personal response activities.

In addition, previously incompatible or separately run computer applications (e.g., electronic books, word processors, art programs, video clips, e-mail) will converge to create cognitive learning digital tool kits that integrate the traditional language arts of speaking, listening, reading, and writing with the multimedia arts of animation, video, music, and art. An integral part of tool kits will consist of digitally animated agents or mentors that will be available on any computer screen a child might access in the school. Digital agents will be customized to offer each child guidance, support, and assistance in his or her efforts to use digital tools in the classroom.

• *New digital applications foster transformed home-school connections.* Home-school connections will be improved by what I will refer to as Optical Enablers, miniaturized

digital video camera networks. For example, in some businesses employees, who are also parents of young children, have computers that are equipped with video camera connections that appear as a small window on their monitors. A click of the mouse at any time of the day allows them to check on their children who are enrolled in on-site day care programs. After parents access a sign-in screen that indicates their child's location, they are able to direct the angle of the camera to observe the child. This intranetwork technology, currently housed within one building, will expand to involve internetwork connections.

In the future all families will have affordable home computers that are as ubiquitous as telephones and televisions. As a result, parents from all walks of life will be able to digitally participate through Optical Enablers in the life of the classroom as storytellers, sources of information through interviews, or collaborators for other classroom projects. Additionally, if a child must stay home due to an illness, he or she may digitally tune in to observe or interact during classroom activities. Digital conferences focusing on a child's progress may occur with the teacher sitting at a desk at school, the father sitting at a computer terminal at home, and the mother sitting at a computer terminal at work. Each monitor screen will display windows that show a portfolio of the student's work, run video clips of the child's oral reading, and offer relevant comments from the child's other teachers.

The brief comments offered in this article point to some intriguing possibilities for how computers may be integrated into literacy instruction and development in classrooms of the future. However, it should be noted that in the future, as it has been in the past, teachers will continue to be the key force that holds classroom literacy instruction together. Teachers will remain at the core of good literacy instruction because they are sensitive to children's needs and they understand how curriculum, materials, methods, and technology can harmoniously work together to offer a rich learning environment for students in the new millennium.

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Being a science fiction nut, I watched in awe in 1968 as *Discovery* propelled Dave Bowman, HAL, and the sleeping crew toward Jupiter in search of the secrets of the lunar monolith. I could hardly wait for the turn of the millennium to see if the future Arthur C. Clarke and Stanley Kubrick foretold in *2001: A Space Odyssey* would be realized. What does our literacy odyssey beyond 2001 portend for classrooms and schools? Will there be exciting, innovative changes? Shocking, frightening ones? Mundane ones?

As with any attempt at augury, one must fight both cynicism and Pollyannaism. Prognostication is dangerous business. *1984* (Orwell, 1949) came and went without drama; there (fortunately) was no *Brave New World* (Huxley, 1950); and *Future Shock* (Toffler, 1970) was, well, not quite so shocking. While perhaps not as dramatic as forecasting space or technology advances, projecting the nature of schools, classrooms, and students' literacy learning may be more crucial to our future global society. In this brief glimpse into the future, I've selectively identified three issues that I believe will persist, at least for a while, into the 21st century. Depending upon the nature of our literacy trek, their resolution may be worrisome or heartening.

Student and teacher diversity. Projections indicate that while the United States school-age population will be increasingly more diverse (e.g., 74% white in 1980 vs. 55% white in 2020; *America's Children*, 1998), most teachers will remain mainstream (e.g., 91% white teachers in 1996; Snyder, Hoffman, & Geddes, 1997). Further, linguistic and academic diversity in classrooms is an increasing reality (e.g., 56% of teachers in a recent poll reported having students with limited English proficiency, and 79% reported having students with disabilities; Alexander, Heaviside, & Farris, 1999). It is clear that teacher preparation institutions must be creative and aggressive in recruiting and retaining minority teachers and that pre- and inservice education must enable tomorrow's teachers to understand, communicate with, and accommodate our increasingly diverse school population. Our challenge is great on this issue, and the stakes are high. Current, heightened sensitivities to diversity and equity are encouraging, but time will tell whether and how we measure up.

Complex problems and simple solutions. I expect that simplistic solutions to complex literacy problems will continue to be offered by politicians, policy makers, and pundits while being credibly received by the populace. What the "No more social promotion," "Explicit, decontextualized phonics instruction across the grades," and "Technology is the answer" simple

solutions of today will become tomorrow I know not, but I worry that they will be just as naive. A related concern is the continued deprofessionalization of teachers. Mandated assessments, legislated curriculum, and shackling policies can place teachers in a state of educational gridlock, denying them the opportunity to exercise professional judgment and pedagogical prerogative. It is our professional responsibility to challenge efforts to take teachers out of the decision-making process. We must fight the reduction of educational problems to one-dimensional solutions, but we must also offer viable, practical, complex alternatives. I believe we will be judged in the future on how assertive and courageous we are in arguing for sane policies in popular venues from defensible theoretical and empirical positions and—at least as important—communicating them along with practical solutions to educational decision makers.

Judicious literacy curriculum and instruction. Contrary to common public opinion, teachers have not engaged in dramatic pendulum swings in philosophy and practice. For example, rather than polarizing on the issue of holistic versus code-emphasis instruction, a significant majority of elementary teachers (89%) indicated recently that they "believe[d] in a balanced approach to reading instruction which combines skills development with literature and language-rich activities" (Baumann, Hoffman, Moon, & Duffy-Hester, 1998, p. 642). Due to the pragmatic nature of their work, teachers instead typically adopted a philosophy of *disciplined eclecticism* (p. 647), in which they selected, adapted, and employed an array of instructional materials and perspectives to accommodate the diverse needs of their students. I find this trend heartening, reassuring, and flexible enough to serve educators well in the next century. I just hope that we provide sufficient advocacy to enable teachers to make informed educational decisions.

Arthur C. Clarke stepped back into the future of humankind in *2010* (1982) and *2061* (1987), and he concluded his quartet in *3001* (1997) with these haunting words by the unnamed power behind the monolith: "Their little universe is very young, and its god is still a child. But it is too soon to judge them; when We return in the Last Days, We will consider what should be saved" (p. 237). Contrary to Clarke's rendering of the future, I believe our fate to be in our own hands. But I do consider him correct in determining it is too soon to judge. The nature of future classrooms and schools is up to us and will be decided long before the third millennium. I only hope that our literacy legacy will be worth saving.

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Classrooms and schools of the next millennium will *look* different than those of the 20th century. Buildings will have new, impressive configurations, technological innovations will abound, and the materials available to students and teachers will be more captivating than ever before. However, it may not be in such settings that we see the highest achievement in literacy. Dollars poured into buildings and contents, without the ingredients we now know are essential for literacy success, will not have the desired impact on improving literacy. What will make the difference in literacy achievement will be the same ingredients that have always made the difference—families and communities that value and support education and school cultures that foster nurturing relationships, professional growth of staff, and development of a research-based curriculum.

Tremendous promise for the 21st century lies in the rich foundation of theory and research in literacy and child development amassed during the 20th century. It is a promise that will be fulfilled only by the careful selection, preparation, and support of principals who are literacy instructional leaders and of teachers and support staff who care about children and want to grow professionally. Successful schools of the next millennium will be places where staff are given more time for planning, collaborating, and learning than in the past and where staff will be engaged in ongoing evaluation and reshaping of curriculum and instruction to meet the needs of a diverse student population. In the

most successful new millennium schools, the first priority for financial resources will be investments in people—in administrators and teachers who set and achieve the standard that all children will leave school with the literacy skills they need to participate in the political and economic mainstream.

In this essay I focus on nine research-based and theoretical maxims that will undergird the development of successful school cultures for literacy instruction in the next millennium. These maxims will be the focus of intensive staff development and curriculum revision in schools where student achievement in literacy meets high standards and apprenticeship of novice teachers to master teachers is the norm.

1. *There is no panacea.* Educators will finally acknowledge that there are no best methods, materials, or technological innovations for teaching literacy. There is only good pedagogy. This pedagogy will be based on applying what we know about child development and learning to establish caring, supportive relationships with students.

2. *Literacy and learning proceed in a developmental progression.* Those who teach literacy will understand that developmental timetables differ among children who are the same age, just as they differ between age groups. In addition, they will observe that each student has his or her own unique pattern of relative strengths. In view of these developmental differences, teachers and support staff will guide students in developing processes and abilities appropriate for their developmental levels. All students in a class will not be on the same page, or even in the same materials, but rather will be grouped, and regrouped, for specific tasks according to where they can function comfortably with teacher assistance. By providing scaffolding for students at levels where they can function successfully with teacher assistance, developmental differences will be respected in schools of the new millennium.

3. *Learning to read and write is the result of a complex interaction between intrinsic and extrinsic factors.* Educators will acknowledge that success, or difficulty, in learning to read and write is the result of what goes on inside a student's head, as well as what goes on in the classroom, home, and larger social contexts. These interactions are complex, not subject to simple cause-and-effect explanations. Thus, when a child is struggling, educators in the new millennium will not wait for someone to evaluate the child and suggest *the* etiology of the problem; rather, they will focus on diagnostic teaching to discover what works in teaching this struggling reader or writer. Where students are most successful in learning to read and write, teachers will have helped these students shape the many factors affecting learning rather than have documented their absence or inadequacy.

4. *Students learn and persist where teaching practices rest on an understanding of motivational theory.* In successful literacy classrooms practices will reflect the teacher's awareness that needs related to physiology, safety, belonging, and self-esteem must be met before students will be interested in how they can meet their needs for knowledge, appreciation, and fulfillment. Once basic needs are met, teachers will establish classroom cultures where students develop collaborative relationships, feel competent, make choices, and understand the rationale for strategies and concepts that they are expected to learn.

5. *Students learn what teachers teach, and sometimes not a whole lot more.* Teachers in the successful literacy classrooms of the new millennium will teach explicitly and well a few generative strategies and concepts over an extended period of time. They will provide explicit explanations and scaffolding for word learning, meaning making, and written expression, especially for struggling readers and writers. And, they will teach in a manner that is meaningful for their population of students.

6. *Student involvement is crucial.* Teachers will plan every-pupil-response and collaborative activities that reflect their understanding that attentive, active, and reflective minds are necessary for learning. They will explain to students the rationale for attention, active involvement, and reflection. They will also provide students with frameworks for active engagement with knowledge and tasks and teach strategies for implementing each part of the framework.

7. *Transactional discourse affects what is learned.* Educators in the new millennium will value teacher-students and student-student discourse. They will employ a responsive and transactional discourse pattern, avoiding the pattern in which the teacher initiates, student responds, and teacher evaluates. They will balance teacher-student talk by involving students in teacher explanations and modeling, by encouraging requests for clarification and feedback, and by co-constructing goals, strategies, and understandings with students. They will provide frequent opportunities for students to experience purposeful transactional sharing and negotiating with other readers, writers, and learners.

8. *Ample opportunities will be provided for meaningful practice.* Classrooms in the new millennium will be filled with students engaged in meaningful reading and writing at their appropriate developmental levels. Some of this practice will be teacher assisted, and some will be self-regulated and independent. All of the practice will be on tasks documented to improve literacy and learning.

9. *Students will seek and apply specific knowledge.* Knowledge will continue to change rapidly in the new millennium, thus the accumulation of knowledge that soon may be outdated will not be as valued as the ability to locate, evaluate, and apply information. Thus, students will be taught how to monitor what they know and do not know and how to locate the information they need, as well as how to manage choices, take different perspectives, and think critically. In classrooms where timely knowledge is valued, they will also learn that developing collaborative relationships, working well with others, and improving one's self for the good of the group will be important to their success.

Classrooms and schools of the new millennium will be multidimensional. No method or set of materials, no political stance or publisher will prevail. Instead, best practices, as outlined above, will set the course for what successful schools and classrooms look like in the new millennium.

Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Looking back, looking forward: A conversation about teaching reading in the 21st century

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Turn-of-the-century prognosticating about schooling seems to fall into two broad categories: wildly optimistic or cautiously pessimistic. Perhaps this is because the evaluations of both historical progress and the current state of affairs in schooling also seem to fall into similar categories. The media, for instance, have largely portrayed public schooling in the U.S. as an outright failure, not only over the past decade (Berliner & Biddle, 1996; Bracey, 1997) but also historically (Rothstein, 1998). Politicians and policy makers have both fed the media and echoed their criticisms. We believe the current public discourse around schooling reflects that of the past. Even Dewey (1968) at the turn of the last century, called for a vastly different education than the norm of factory-like schools that were more frightening than the sweatshops of the day. To be blunt, there is a similar perception about contemporary schools: Public education has failed and drastic change is needed. This perception is even more true, it seems, when the topics of literacy teaching and learning are the focus.

With this context as a backdrop we initiated a discussion of schooling in the U.S.—particularly literacy teaching and learning—past, present, and, of course, future.

Looking back

AMF: What have we accomplished since John Dewey called for progressive education?

RLA: As we entered the 20th century, schools in the U.S. were just coming to grips with compulsory public education. Child labor laws had been enacted and enforced only recently, and compulsory attendance was spotty, especially in the most rural regions of the nation. The city school systems and the one-room country school provided most children with access to schooling through eighth grade most commonly, but only a few students, and then mostly males, attended school beyond this point. In 1890, for example, fewer than 10% of students were enrolled in secondary schools and an even smaller percentage of females were enrolled. However, there was a rapid acceleration in high school attendance, and by 1920 universal high school education was required in most states. Nonetheless, two thirds of those who entered high school failed to graduate (Rothstein, 1998).

In addition, the turn of the century marked the emergence of the *scientific* method as the modern way to solve social problems. There is a familiar ring to much of the educational rhetoric of that era—one that echoes in the rhetoric emanating from the Business Council today. For instance, Elwood Cubberly (1908), then dean of Stanford University's education school, wrote of schools as

> factories in which the raw materials (students) are to be shaped and fashioned into products to meet the various demands of life. The specifications for manufacturing come from the demands of 20th century civilization, and it

is the business of schools to build its pupils to the specifications laid down. (pp. 49–52)

Cubberly went on to note that the U.S. was engaged in a global competition where more highly skilled workers were needed, and, therefore, schooling had to improve. Needed improvements were to be drawn from scientific analyses including time-activity studies and standardized assessments to estimate both the intellectual capacity of students and the effectiveness of teachers. An educational bureaucracy with more centralized and more vigorous control of curriculum and assessment was proposed to manage the new, more efficient methods of schooling. Dissemination of the new science of reading instruction was to be accomplished through the application of the new scientific findings to textbook design, including far more detailed manuals for teachers (Shannon, 1989). Does any of this sound familiar?

AMF: Amazingly familiar. As you said, scientific study was applied to reading within the first few decades of the 20th century, and yet, just a few years ago, the profession felt the need to establish a journal and conference named *Scientific Studies of Reading*, lest we reading people forget our roots in scientific inquiry.

Beginning in 1915, there were recommendations for effective reading instruction offered by a handful of education and psychology professors in the yearbooks of the National Society for the Study of Education. The research of William S. Gray and E.L. Thorndike, for example, was used to design graded reading materials using controlled vocabulary, surely one of the most important developments in the teaching of reading this century. Concerns about substantial failure in learning to read prompted these new designs for beginning reading materials. For instance, from the late 1920s to the early 1960s, fewer and fewer unique words were introduced in the primary readers, leading some advocates to decry the whole-word method as overly simplistic and limiting to children's reading development (McGill-Franzen, 1993; Smith, 1934/1965).

Nonetheless, in terms of reading curriculum, the controlled-vocabulary basal reader dominated from 1930 to the late 1980s. The directed-reading activity emerged as the dominant instructional activity; seatwork, using the ubiquitous workbook, became another. Matching children with graded books at a level appropriate to their development became a central, if often ignored, tenet of reading instruction. Betts (1949) promoted informal oral reading criteria for placing students with texts at their independent or instructional reading levels, thus creating an instructional framework that endures to this day. Students were organized into three groups for reading instruction. According to the differentiated educational experiences plan, a scientific idea of this time (Allington, 1991), pacing through the curriculum was based on some estimate of each group's capacity for learning. There were other schemes, such as the Joplin, Missouri, plan, that grouped children by reading achievement, regardless of age, for their reading lessons, an arrangement that is gaining in popularity today.

During the 1920s and 1930s reading instruction shifted from a heavy reliance on oral recitation to an emphasis on silent reading and comprehension (Allington, 1984). As for the reading curriculum, most commercial basals offered a blend of whole-word and phonics lessons. Basal readers now emphasized childhood experiences more than moral tales and offered less visibly patriotic content in the upper grades (Smith, 1934/1965). There were challenges to the existing order, from both advocates of more child-centered pedagogies and advocates of a return to traditional education (Spring, 1989). By midcentury, Flesch (1955) popularized the call for a greater emphasis on phonics, and Bloomfield and Barnhart (1962) created readers consistent with linguistic theory of the time; but it was the Dick and Jane reader that prevailed (Langer & Allington, 1992), at least until recently.

RLA: Even as the design of reading lessons was drawn from the increasing array of scientific experiments on reading acquisition in the 1930s and 1940s, the popular press rarely wearied of accusing education of replacing basic skills teaching with "fad and fancy" (Rothstein, 1998, p. 16). This seems a central theme in U.S. education—no matter what the actual circumstances, the press finds fault with current instructional practice. If instruction is innovative, the press finds faddism; if instruction is basic, the press finds stagnation.

AMF: In many respects, by 1930 modern schooling, the experience so familiar to all of us, was largely in place. In other words, age/grade groupings were common wherever the number of students was sufficient, graded curriculum materials and achievements were standardized nationally through textbook and test publishers, and centralized educational bureaucracies had developed at state, county, and city levels. Of course, schools were still legally segregated by race in many states and were commonly segregated by social class.

RLA: Progressive reformers of the era characterized schooling as stultifyingly uninteresting as well as hardly fostering the goals of a just and democratic society (Luke, 1988). At the same time, conservative critics regularly decried the "slipping standards" and the "rising numbers of illiterates" while calling for a return to traditional schooling (Rothstein, 1998, pp. 10–16). The nation's future often was seen as imperiled because our schools were simply not preparing sufficiently skilled workers, scientists, and

scholars. This occurred as the U.S. emerged as a world power both militarily and economically.

In fact, throughout the 1930s, 1940s, and 1950s there were relatively consistent complaints about American schools and one reform plan followed another (Cuban, 1990; Rothstein, 1998; Tyack & Cuban, 1995). The 1957 launch of the Russian space satellite, Sputnik, accelerated demands for education reform—demands that schools become more academically challenging. Education was touted as a national defense issue and, for the first time, the calls for reform implicated a substantive role for the federal government (Dow, 1991). But it was, perhaps, the Supreme Court's 1954 *Brown v. Board of Education of Topeka* decision (Winston, 1996), undoing the separate but equal doctrine that had allowed racially segregated schooling, that would lead most immediately to U.S. federal involvement in education.

AMF: In the 1960s, the U.S. federal government began to fund education programs to improve schools, particularly schools that were recently desegregated. The National Defense Education Act of 1959 (NDEA) added guidance counselors, primarily to better identify the intellectually gifted students who were seen as needing an accelerated education to advance rocket science in the U.S., and funded the education of teachers to work specifically in low-income communities. I had an NDEA fellowship to attend the University of Pittsburgh [Pennsylvania] for a master's in reading education. Without that support in the late 1960s, I would not have become a teacher. What about you?

RLA: Well, I became an elementary school teacher in 1968. My undergraduate education was funded, in part, by an NDEA loan. But, because I taught in a high-concentration, low-income rural school, 20% of my debt was forgiven each year. In the end, then, I did not have to pay any of that money back. I think I would have still become a teacher without that program, but it did make teaching more attractive, especially in a high-poverty elementary school.

AMF: The Civil Rights Act of 1964 made the Elementary and Secondary Education Act of 1965 (ESEA) and federal intervention in local schools possible. The ESEA was supposed to provide funding for a variety of initiatives, but primarily funding to improve the educational programs of economically disadvantaged children and youth (McGill-Franzen, 1994). The ESEA also provided funding for an enormous expansion of university-based reading teacher education programs.

RLA: Yes. In fact, the reading profession owes much debt to the ESEA. It was that Act that literally institutionalized reading teachers into the educational workforce. A working premise of ESEA was that adding specially trained reading teachers to schools with many disadvantaged children would improve the quality of classroom reading in those schools. Unfortunately, most reading teachers employed under Title I (called Chapter 1 initially) of the ESEA were simply given a room down the hall where they worked with groups of eligible students (Allington, 1986). There was little evidence that the Title I programs had any substantive positive effects on the quality of classroom instruction, and many have noted problematic impacts of the ESEA.

Head Start, first funded through the Office of Economic Opportunity in 1965, along with the Bilingual Education Act of 1968, the Education of Handicapped Children Act of 1975, and ESEA, all were federal efforts to foster access to improved education for historically underserved populations of students. At least one of these federal educational initiatives was operating in every U.S. school district by 1976. Thus, federal influence on education was increasing even though education had been viewed historically as a state responsibility and, therefore, no concern of the federal government.

AMF: But federal intervention was motivated by growing evidence that schools served only some students well. The Coleman report (1966) was a wake-up call to U.S. educators: Schools served only to perpetuate the social and economic inequality of society at large; schools did not make a difference in the lives of children from low-income and minority families. The large gap in achievement between minority and white students provided the impetus to try to level the playing field for children disadvantaged by poverty.

In 1967, as a first-year teacher—a junior high teacher in a large, recalcitrant southern city school district—I witnessed the educational travesty that racial isolation wrought. The junior high student body was entirely minority and poor. I was the school's first reading teacher, hired with Title I money. I taught there for 3 years. During each of five daily class periods, I had 20 students, a reduction of at least 15 or 20 students from the usual size of an English class. Each quarter the students changed, so no student ever had two quarters of remediation. Because I was the only reading teacher the school had ever had, and because the need was so great, I taught hundreds of students in my 3 years. None of my seventh graders could read beyond a primer level when they arrived; many could not read at all. One young man proudly showed me what he had been taught in 9 years of school: to write his name without copying the label his mother taped to his pencil.

I believe Title I was needed and is still needed. Title I is, in theory, generous, smart policy and a remarkable achievement of federal intervention. Unfortunately, an emphasis on compliance produced unforeseen negative consequences in the implementation of Title I.

RLA: The basic design of these federal initiatives created a second educational system within schools, especially schools with many poor children. In most schools the federal programs were administratively, and often instructionally, separate from the general education program and less effective than had been hoped (Allington, 1994). Timar (1994) succinctly summarized this problem:

> Title I shaped behavior in schools in several unintended ways that, in the long term, inhibited organizational effectiveness.... The program developed its own culture, one that favored uniformity and procedural regularity over innovation, experimentation, and the exercise of professional judgment. Schools could be sanctioned for not following the rules, but they could not be legally sanctioned for failing to teach students. (p. 53)

I would argue that the ESEA policy logic was well crafted but that the implementation went awry. This was a massive program of national scale implemented by trial and error. In fact, most of the highly criticized, red-tape regulatory aspects of Title I evolved after it was clear that many local education agencies were not spending the new federal money on the intended recipients. It is usually quite easy to criticize programs after the fact, but developing ideal social or educational programs that solve the intended problems is a complex undertaking, especially because policy is invariably distorted as it trickles from Washington to the state capitals, to districts, and then to schools and classrooms.

AMF: The uniformly disappointing results of the national evaluations of Title I and Head Start (e.g., Austin, Rogers, & Walbesser, 1972; Carter, 1984; Zigler & Muenchow, 1992) sorely tested the heart and will of the people in the U.S. to continue to support the antipoverty educational programs' legislation of the 1960s.

RLA: Yes, but those disappointing results may have been due to an unbounded optimism that infected many reformers during the 1960s. Zigler and Muenchow (1992, p. 1) noted, "Some of the hopes of the mid-1960s were naive; some led to inflated promises that no social program could possibly deliver." Title I, for instance, provided a few hundred dollars extra per participating child, and there were always more nonparticipating eligible children than there were participants. The situation has been the same for the Head Start program. Nonetheless, the first large-scale study of Title I sustained effects (Carter, 1984) suggested that the program had little long-term impact on student reading achievement. But this study showed that early-grades interventions seemed to produce reliably better results than later-grades designs. This finding initiated a shift in Title I policy. For the first 20 years of the program, Title I remediation typically did not begin until third grade or later. As Carter (1984) pointed out, Title I often offered too little, too late. This view was more recently echoed by Puma and his colleagues (1997) in the second longitudinal evaluation of Title I: "The level of instructional assistance Title I students generally received was in stark contrast to their levels of educational need" (p. iii). Title I has been a large and unwieldy program that has never been adequately funded to achieve the substantial and optimistic goals set for it.

AMF: Nonetheless, the steady and even slightly improving achievement of economically disadvantaged students is testimony to Title I effects. After all, the proportion of school-aged children from low-income families increased dramatically between 1960 and 1990, so making even a stable achievement pattern across this period is something of an accomplishment (Grissmer, Kirby, Berends, & Williamson, 1994).

RLA: I agree. Given the track record schools have with children from low-income families and the increased proportion of those children in the school population—almost a 50% rise in 30 years—the relatively small improvements in reading achievement on the National Assessment of Educational Progress (NAEP) over the past 30 years (National Center for Educational Statistics, 1998) might be considered an accomplishment. But more on this later.

So, as school systems have struggled to educate increasing proportions of the student population to ever higher levels of achievement, public concerns about the actual educational attainment levels of graduates seem to have burgeoned. A new era of school accountability was ushered in when minimum competency testing was implemented within a decade (1970–1980) across the United States (Heubert & Hauser, 1999). High school graduation tests were instituted that typically required demonstration of some minimal level of proficiency in the basic skills, with a particular focus on basic reading proficiency. But most states also implemented earlier levels of minimal competency testing in reading, commonly at third and sixth grade. These tests gradually became high-stakes assessments as state education agencies began releasing school performances to the media and identifying blue-ribbon schools and underperforming schools—schools where the proportion of children failing to meet the imposed standard exceeded state benchmarks (Airasian, 1988).

Performance on the minimal competency assessments were most often unsatisfactory in schools enrolling many children from low-income families, even though the achievement levels set on these tests were, in fact, quite minimal levels of proficiency. Nonetheless, every year there were a number of schools that failed to

achieve the state minimum standard, and the schools were then targeted for state-sponsored improvement plans. This pattern was repeated in state after state.

AMF: Similarly, the federal government initiated the National Assessment of Educational Progress (NAEP) in 1971 to monitor student achievement in the basic skills. Across the numerous administrations of the NAEP, and across the various state testing programs, student reading achievement performances gradually improved (Berliner & Biddle, 1996). At the same time, the source of the improved performances, especially the reports of dramatic improvements in achievement in some districts in a very short time, was questioned. For instance, our study of the unintended effects of educational reform (Allington & McGill-Franzen, 1992) demonstrated that, in several of the school districts we studied, virtually all the improvement in reported performance on state tests over a decade could be accounted for by the increased incidence of retention in grade and increased identification of students as disabled. Retention artificially enhanced reported scores, as low-achieving students were held out of the testing for an additional year of schooling and the performances of students with disabilities, if they sat for the exams, were not included on school reports. Haladyna, Nolan, and Haas (1991) reported that substantial test preparation, much of it deemed unethical, existed in schools with the goal of enhancing test performances. Similarly, outright falsification of test performances have been reported in the media too commonly (McGill-Franzen & Allington, 1993). Such concerns are once again being raised in districts across the nation.

RLA: Concerns about the low demands of minimum competency tests was one of the reasons national standards and a national test were proposed in the 1990s. This was a proposed level of federal involvement that would have been unthinkable when Title I was created. I think it was with the release of two federal reports in the early 1980s—*A Nation at Risk* (National Commission on Educational Excellence, 1983) and *Becoming a Nation of Readers* (Anderson, Hiebert, Scott, & Wilkinson, 1985)—that it became clear to me that there were plans for even greater federal involvement in education, despite the mixed results of Title I and other federal programs. Along came the first national education summit (Finn, 1991), where the widely implemented minimum competency goals were vociferously derided and a call for *world class* standards emerged. But the push for federal education standards did not fare well, so federal funds were allocated to support the development of new state standards and assessments of those standards if a state wished to continue receiving federal education funding. The NAEP achievement reporting was altered with absolute proficiency levels established for the first time (Rothman, 1995). Achievement of these new proficiency levels was what was to be reported to the public.

Not surprisingly, the new NAEP proficiency levels were at some variance with actual student performance, and thus, the NAEP results became evidence that schools in the U.S. were failing to educate children sufficiently well. Never mind that the reading achievement of 9-year-olds in the U.S. on the NAEP kept creeping upward. Never mind that U.S. 9-year-olds outperformed 9-year-olds in 29 of the 32 industrialized nations in the most recent international literacy comparisons (Elley, 1992). Failure of students to achieve the new NAEP proficiency benchmarks has been used as evidence of the need for fundamental changes to the structure and governance of education in the U.S. (Bennett et al., 1998) and for changes in reading instructional methods (e.g., Sweet, 1997).

AMF: But Dick, reading methods have changed, and changed again, over the past few decades. Although the controlled-vocabulary basal reading series had remarkable longevity, it was seriously challenged, first by skills mastery curriculum models and materials in the 1960s and 1970s, then by schema theory and the emphasis on comprehension during the early 1980s. This was followed by a shift toward implementing literature-based instruction, process approaches to writing, and integrated language arts in the late 1980s and early 1990s. This is not to say that basal readers disappeared from American classrooms during that time—they did not (Canney, 1993; Strickland, Walmsley, Bronk, & Weiss, 1994). Rather, commercial basal reading materials changed and, in many classrooms, became but one component of the reading curriculum. Tradebook reading and writing both became more prominent (Allington, Guice, Michelson, Baker, & Li, 1996; Knapp, 1995). In some schools basals did disappear from classrooms in the late 1980s and early 1990s, although this was far from a universal experience. Now, I would say that we have gone full circle, with vocabulary control, especially the decodability of words presented (Allington & Woodside-Jiron, 1998b), dominating commercial reading materials and skills mastery emphasized once again.

RLA: But even though the nature of the reading curriculum has shifted over time, elementary school children's reading achievement in the U.S. has remained quite stable over the past 30 years.

AMF: Are you saying that curriculum materials have nothing to do with achievement?

RLA: Basically, yes. I think this was, in fact, the most important message of the First-Grade Studies (Bond & Dykstra, 1967):

> Future research might well center on teacher and learning situations rather than method and materials. The tremen-

dous range among classrooms within any method points out the importance of elements in the learning situation over and above the methods employed.... Children learn to read by a variety of materials and methods. (p. 67)

The most important variable in teaching reading, I believe, is the quality of classroom reading instruction, and that seems largely independent of the nature of the curriculum materials. It amazes me that it is only recently that we have begun to estimate the impact of access to high-quality teaching. What amazes me more is the incredible impact of access to good classroom teachers. In their study, Bembry, Jordan, Gomez, Anderson, and Mendro (1998) reported enormous differences (e.g., 35+ percentile ranks) in reading achievement for children who spent 3 years with more effective teachers (upper 40% in achievement gains) compared to children who spent 3 years with less effective teachers (bottom 40%). Sanders (1998) reported similar differences in patterns of achievement among children whose teachers varied in their instructional effectiveness.

In our recent study of exemplary first-grade teachers (Pressley et al., 1999), there were large effects for exemplary teachers on the achievement of the lowest achieving children. What is interesting is that the teachers Bembry and her colleagues (1998) studied were from a single school district with a common curriculum plan, whereas the exemplary teachers we studied were located in a dozen school districts in five states—the epitome, perhaps, of curriculum materials' variation. I cannot think of better demonstrations of the impotence of curriculum materials.

That said, let me make one more comment: I do think easy access to a rich array of well-designed curriculum materials can make good teaching more likely. Our exemplary teachers routinely used multiple curriculum materials. But I think that was because they viewed their job primarily as teaching children and not as teaching curriculum material. If we take this idea of the importance of children's access to high-quality teachers seriously, I think it suggests a quite different approach to better meeting the needs of children who find learning to read more difficult. That is, we would concentrate more on improving classroom instruction and worry less about special programs and curriculum materials.

AMF: On the topic of special programs, the National Center for Educational Statistics (1998) recently reported surprisingly that the majority of personnel in U.S. elementary schools are persons other than classroom teachers. Thus, I would argue that one primary shift that has been accomplished in the latter half of this century is the enormous expansion of remedial and special education, such that nonclassroom teaching personnel, many supported with federal funding, have become a dominant presence in elementary schools. Certainly, the number of children identified as learning disabled (LD) in reading has skyrocketed, a phenomena that has attracted little notice within the reading profession (McGill-Franzen, 1987), but prompted the recently well-publicized National Institute of Child Health and Development (NICHD) research agenda (Lyon, 1995) and the publication of *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998), a synthesis of research and policy recommendations for beginning reading instruction by the National Research Council.

RLA: Yes, but it remains unclear to me just how research on children with learning disabilities informs us about improving beginning reading for most children.

AMF: The research on learning disabilities is relevant to reading instruction if you believe, as I do, that classification of any child as learning disabled is a socially and politically negotiated process based, at least in part, on family and school resources for intensive instruction for struggling readers, and the public reckoning brought to bear upon individual teachers, and individual schools for low reading test scores. A combination of these elements, I believe, sustains the erroneous belief that high percentages of young, struggling readers learn differently than their peers and cannot be expected to make average progress or participate in the public accountability stream.

Although struggling readers often confront a host of challenges beyond the quality of their reading instruction, I submit that knowledgeable and caring teachers can teach every child to read, and indeed, they hold themselves accountable for doing so. Such teachers know reading development, but they also know the children they teach—not only where each child falls along a continuum of literacy development, but also how each child functions as a person within particular family and community contexts. Most important, such teachers do not teach from within a rigid pedagogy—whether so-called constructivist or traditional—they teach from what children need to know. Currently, research in the field of learning disabilities has helped inform teaching and learning of children with diverse abilities and achievement levels, demonstrating that focused reading instruction enables the majority of children who might otherwise be considered learning disabled to achieve levels and at average rates (e.g., Vellutino et al., 1996).

RLA: I don't disagree generally, but there is a widely disseminated misinterpretation of much of the LD intervention work—reporting that such research supports a relatively narrow and rigid pedagogy for beginning reading for all children (e.g., Moats, 1998; Sweet, 1997). Although NICHD officials have discounted these misinterpretations (Fletcher & Lyon, 1998), we still see state poli-

cies being enacted based upon them (e.g., Allington & Woodside-Jiron, 1998a, 1998b). Let me revise my earlier point: I worry that too much emphasis is being placed on a small subset of reading research, no matter how powerful the findings (Pressley & Allington, in press). We are better served by attempting to incorporate those studies into the larger set of studies of reading acquisition and effective instruction.

Moving on, I think federal education policy is now shifting based on a recognition of the failure of 30 years of special programs largely segregated from the core curriculum and the general education classroom. Federal program regulations have begun emphasizing in-classroom service models instead of pull-out programs, instruction on the core curriculum rather than on a separate and specialized curriculum, collaboration among general education and special programs personnel, professional development to build school capacity to better serve disadvantaged children, and outside-of-school programs, summer school, and extended day programs (Allington & McGill-Franzen, 1995; National Commission on Time and Learning, 1994).

In addition, the new state standards-setting process and the development of new assessments to measure achievement of those standards, along with new accountability measures for schools where achievement is low, all have occupied much of the professional and policy debate in the 1990s (McGill-Franzen, in press). There is, of course, a link between the recent emphasis on extending school time and these new standards. As the National Commission on Time and Learning (1994) so succinctly put it: "For the past 150 years, American public schools have held time constant and let learning vary.... Holding all students to the same high standards means that some students will need more time...." (pp. 1–3).

Coupled with these developments is the widespread public and political support for ending social promotion, and not promoting children to the next grade until they have mastered grade-level standards. But such calls are hardly new; they have echoed across the century, and the extra time interventions offered today have been the prescription offered before (Rothstein, 1998).

To me, the recent charges of faddism run rampant in U.S. education and the calls for a return to the basics, especially a return to an emphasis on phonics as the solution to the perceived ills of elementary school reading instruction (Learning First Alliance, 1998), sound substantially like the earlier calls throughout the 20th century. Likewise, the calls for relying on research—or someone's interpretation of some of the research—to solve the educational challenges have echoed across the past century. It was the research of the 1970s and 1980s that led us away from controlled-vocabulary texts and phonics skill-and-drill programs—the same research that targeted reasons for students' poor comprehension as the major focus for research at the federally funded Center for the Study of Reading at the University of Illinois.

AMF: Throughout the recent history of education whenever there is a sharp political shift to the left, there is almost immediately a pull toward the right, so that the center regains equilibrium. I think that the same forces operate in teaching reading. Our exemplary California teachers, who are informants in a cross-state policy study, insist that they knew right away that phonics was missing from the 1987 literature framework for teaching English language arts:

> When we adopted 9 years ago, our previous basal program was more a whole language program, influenced by the state framework. But many teachers in California quickly became aware that the programs were missing a lot of pieces.... We were in the middle of the whole language movement that emphasized literature and deemphasized phonics. We were still teaching phonics, but the programs we adopted didn't have any explicit phonics instruction in them, so the teachers were sort of grabbing what they could because they knew it was important. (McGill-Franzen, Woodside-Jiron, Machado, & Veltema, 1998, p. 10)

Our California respondents in this same policy study did not object to more emphasis on the code in their reading instruction and, in fact, reported more of a phonics emphasis in their practice; rather, they objected to the legislative mandate that they do so.

> The way the legislation is written, it is addressing the areas of need in California and we as educators need to [be accountable in] each of those areas. However, when the legislation gets into telling us how to address those areas, then, because it is written by legislators, not educators, it loses its power. (McGill-Franzen et al., 1998, p. 11)

Exemplary teachers saw the legislative detail as a rebuke to their professionalism, a breach in the contract between them and the community that they as teachers would know how to do the right thing.

Likewise, the emphasis on 1970s skill-and-drill in Head Start and kindergarten classrooms brought about the shrill denouncement of any literacy instruction at all from the National Association of the Education of Young Children (NAEYC) in the 1980s, thus banishing print from classrooms for disadvantaged children for at least a decade, including the innocuous alphabet song (McGill-Franzen, 1993). In the process, research was produced (and published) by progressives that suggested that children taught reading by direct instruction were more likely to become juvenile delinquents (Schweinhart & Weikart, 1998). I believe that the emotionality of the current de-

bate over direct instruction and phonics has its roots in these excesses of the past. It is not far-fetched to speculate, for example, that children from low-income families need direct instruction in phonemic elements of the English language precisely because their experiences in preschool, and even in kindergarten, have been bereft of any such attention. What do you think of my theory?

RLA: Well, the problem for me is this: What do you mean by direct instruction? I think the Sacks and Mergendoller (1997) and the Purcell-Gates, McIntyre, and Freppon (1995) studies, among others, suggest that children from low-income families benefit more from rich language and literacy environments than they do from traditional skills classrooms. But I think that the whole language teachers in the studies often did offer direct instruction in phonemic awareness and letter-sound relationships; they just did not offer the sort of instruction that most people would label direct instruction. Let me ask you, was the instruction offered by the books and the teachers in our Philadelphia kindergarten study direct instruction (McGill-Franzen, Allington, Yokoi, & Brooks, in press)? There were no teaching scripts. There were no drills, no stack of worksheets, no phonics wall charts.

AMF: Direct instruction does not necessarily mean instruction that is highly scripted in terms of teacher prompts and student response, although I suppose it could be. The defining feature of direction instruction, in my view, is that it is explicit. I am not sure what you mean by drills and worksheets, but I sense that these are code words for bad things. If drills is a code name for practice, then yes, practice should follow explicit teaching, and in those kindergarten classes, practice did follow. Remember the word banks? I don't know what to say about worksheets. I have seen worksheet tasks that I liked and others that I didn't like. A task does not have to appear in a worksheet format to be bad, and all worksheet tasks are not bad. I do remember some worksheets in the Philadelphia study kindergarten classes. As for phonics charts, if you are referring to "a is for apple" charts, then they were indeed on the walls of the kindergartens we observed. Whether anyone used these charts is another question. Why would they, with their word wall in place? I would say that word walls (Cunningham, 1995), with both high-frequency words and common spelling patterns represented there, are a more transparent medium for gaining knowledge of the orthography and more useful for explicit instruction than phonics wall charts.

RLA: Perhaps I have conceded the definition of the term *direct instruction* to those folks who create and market commercial materials that are highly scripted—materials considered teacher proofed. Kameenui, Simmons, Chard, and Dickson (1997) even argued that "the way the information is packaged before teacher delivery" (p. 67) is one of the defining characteristics of direct instruction. I do think instruction often needs to be explicit, to use Duffy's term (Duffy, Roehler, & Rackliffe, 1986). But part of the expertise of effective teachers is knowing what to be explicit about and when. As for skills and worksheets, what I was attempting to emphasize was an enormously reduced role of decontextualized drill and practice today compared to historical practices—especially compared to reading curricula from the 1960s and 1970s.

In fact, in the Philadelphia project (McGill-Franzen et al., in press), the experimental group of teachers learned how to be explicit while reading a story to kindergarten children, while composing a morning message and modeling sound stretching in front of those children, and so on. But they were not given packages of isolated skills with scripts to follow in introducing those scripts to children. Nonetheless, there does seem to be a consensus that explicitness is necessary for instruction to be effective. Perhaps this is one of the key issues for the next century—what to be explicit about and when and how.

One way of thinking about commercial curriculum materials would be to evaluate what features of print and texts they identify as needing explicit instructional attention. The decodable text issue, for instance, seems but a shift in which text features are targeted for explicit attention. But, again, the shift toward more attention to vocabulary control, in this case attention to the relationship of the word structure and the decoding skills children have acquired, seems a response to the basal publishers' recent lack of concern about the type and numbers of unique words that children encountered in beginning reading materials. In other words, many classroom teachers noted the difficulty that beginning readers had when they encountered so many new words of so many different sorts in the literature-based basals or tradebook collections (Hoffman et al., 1998).

AMF: Although you refer to curriculum as the materials (or textbooks) of instruction, the curriculum that matters, in my view, is the *enacted curriculum*. Earlier you emphasized the role of the teacher in the enacted curriculum, but the teacher is only one part, albeit an essential part, of the total context. As Ball and Cohen (1996) and others have pointed out, the enacted curriculum is co-constructed by students and the knowledge they bring to the classroom, by teachers and their understandings, as well as by the materials teachers and students use (Barr, 1975; Weber, 1970). I do not believe that teachers have to create their own curriculum rather than use commercial materials to be considered exemplary. We have been socialized into thinking that commercial curriculum materials are not as effective as curriculum

materials that teachers themselves develop. To construct, say, a first- or a third-grade reading curriculum from scratch would require heroic efforts on the part of teachers—I believe you refer to such teachers as Joan of Arc teachers. On the other hand, commercial curriculum materials rarely offer opportunities for teachers to extend their learning beyond implementation of the particular materials at hand, say, for example, with examples of student work or the understandings that underpin such work. However, Reading Recovery does: Teachers build a theory of learning based on the student's response to particular materials. Although many have decried commercial reading materials as deskilling teaching and teachers (Goodman, Shannon, Freeman, & Murphy, 1988), these ubiquitous materials may, in the future, be reconceptualized (and redesigned) as educative for teaching practice as well as for student learning:

> Teachers could be engaged with curriculum materials in ways that generated learning if the materials were integrated into a program of professional development aimed at improving their capacity to teach. In that case, well-designed materials could be a resource for teachers' learning. (Ball & Cohen, 1996, p. 8)

Teachers often are knowledgeable and discriminating users of commercial curriculum, and I think that is just what we found in our California policy study. The teacher I quote in following excerpt was representative of exemplary teachers there in that she understood reading development, the possibilities of the commercial curriculum materials, and the needs of the children she taught in particular:

> When we adopted [a basal reading program], we did not adopt it as our complete reading program, we adopted it as our shared reading program, which is whole-class instruction and direct instruction of skills. Then we put in guided reading separate from the basal, with leveled texts, and [we also put in separately] literature discussion groups with books that are at whatever level the kids are, and [we also put in] the writing piece. If we hadn't done this, we would be back to the stage where we've got a ton of kids that can't read the [grade level] basal. The way we have it structured [now] we've got leveled books in place for kids who can't read at grade level, so they will receive guided reading instruction with books appropriate to their level. (McGill-Franzen et al., 1998, p. 12)

RLA: I don't really disagree with you on this. The key is how commercial materials are used. The problem, as I see it, is that too often just following the reading series becomes the standard practice in schools where a basal is uniformly adopted; that is, the reading series dominates the instructional time. But no basal series contains enough reading material to produce high-achieving readers. A basal can be useful as a general framework, say, for use on Monday and Tuesday, but when the basal lessons become the total reading program, achievement suffers. I mean, how can anyone justify spending 5 days on a single 20-minute story or excerpt? If the basal enhances the likelihood of routinization of instruction, if it fosters unresponsive and unreflective teaching, if it restricts the amount of reading and writing that children do, then it creates more problems than it solves. But this is not a new concern, as Betts (1949) noted:

> In some schools instructional materials are limited almost exclusively to basic textbooks in reading, science, and other areas. These basic textbooks are often misused. At each grade level the book carrying that grade-level designation is used as the prescription for undifferentiated, mass instruction of all the children in the class. At the other extreme are schools that attempt to rule out the basic textbooks. In these situations, conditions can be equally frustrating for teachers and pupils. Teachers can be overworked by attempting to devise study materials. Children can be frustrated in their efforts to deal with materials of unsuitable readability. The methods of using instructional materials is a crucial factor in adjusting instruction to individual needs. (p. 268)

As I noted earlier, I think our most effective teachers teach children, not materials. They may use commercial materials regularly, but they do not use them slavishly. They use an array of curriculum materials and instructional strategies. Our most effective teachers are curriculum problem solvers, and, often, the commercial materials are part of the solution.

AMF: Schools and programs and reading lessons may change, but when teachers plunge into the risky business of change, there is no guarantee that instruction will improve (Elmore, Peterson, & McCarthy, 1996).

RLA: True, change is not always productive (Elmore et al., 1996), nor is the process predictable (Johnston, Allington, Guice, & Brooks, 1998). Nevertheless, schools and curriculum are always changing.

Looking forward

AMF: So let's talk about the schools of the future. I think that currently, as has been the case historically, there is no clear agreement on just how schools should change.

RLA: Well, in fact, Tyack and Cuban (1995) have argued that reforms are often stifled because they violate the *grammar of schooling*:

> Most Americans have been to school and know what a "real school" is like. Congruence with that cultural template has helped maintain the legitimacy of the institution in the minds of the public. But when schooling departed

> too much from the consensual model of *a real school*, failed to match the grammar of schooling, trouble often ensued. (p. 9)

If Cuban (1990) is correct, we can expect that although some aspects of schooling will change rather rapidly, the nature of classrooms may not be so easily altered. That is, although classrooms today certainly look different than they looked at the turn of the last century, evidence suggests that the initiate-reply-evaluate (IRE) pattern of classroom discourse dominated then and dominates today. The question, though, is why some would end the dominance of the IRE while others insist on its merits. In some senses, this difference alone accounts for much of the rancor between traditionalists and reformers today.

AMF: Well, Dick, any question today about discourse is loaded. It is loaded because, to me, talk about discourse has often sounded fatalistic: You are born into a discourse community and there you stay forever. Instead, I like the way Applebee (1996) situates discourse within the disciplines. This approach separates talk about language use from race and social class issues and puts it in the context of disciplinary knowledge, knowledge that is taught and learned in the classroom. Each disciplinary community privileges ways of thinking, talking, and writing, and each discourse community has its own traditions and, I imagine, reforms. I see the central issue here as one of access to the discourse, not one necessarily of discourse structures, like IRE. So I would pose the question as, how can we teach all students to become participants in the discourse, say of English language arts, so that they not only understand the discourse, but can transform it? Appropriate teaching strategies are those that make the process of disciplinary thinking, talking, and writing transparent to the learner and engage the learner in knowing. The work of Judith Langer (1995) suggests important ways teachers can scaffold students' understandings of literature, and, of course, chief among these strategies is discussion. Through discussion, teachers can help students move between the text and the interpretation, between literature and their lives. As you suggest, Dick, it is difficult for many to give up the traditional IRE pattern of classroom lessons; Langer tells inservice teachers that it is like getting new bones.

However, it is worth the effort: Martin Nystrand (1997) found that a single instance of a teacher building upon a student response during a class period correlated with measurable achievement gains for students in that class. Although Nystrand studied secondary classrooms, other researchers at the Center for English Learning and Achievement are currently looking at the qualitative dimensions of discourse within exemplary classrooms with integrated curricula. The benefits of teaching strategies that honor multiple perspectives and make the process of understanding transparent have already been documented (Goatley, Brock, & Raphael, 1995; McGill-Franzen & Lanford, 1994)

RLA: It seems obvious to me that these more complicated patterns of classroom discourse relate to the new thoughtful literacy standards that have been put in place. But we have only scant research available on the sorts of instructional environments that foster achievement of those standards. In other words, almost all the available research estimated achievement using the older basic skills assessments—even *the reliable, replicable research* that is so much talked about these days. Enriching our understanding about the nature of curriculum and instruction that fosters achievement of the new standards would seem a worthy focus of the next generation of researchers.

But the new standards implicate another important facet of schooling: educating those children who have historically found it difficult to keep pace with their peers when offered schooling of similar quantity and quality. Alan Odden (1997) explained the problem in economic terms:

> The current standards-based reform goal is to raise achievement of 75% or more of the students to the level currently attained by only 25% (NAEP proficient level).... This goal—a 100–200% increase in results—represents a quantum, not just a marginal, improvement in school performance. (p. 4)

For schools to achieve this sort of improvement represents, perhaps, the greatest challenge to the ingenuity of educators in the U.S. No longer will a third or more of the students be allowed to lag in development, completing 10 or 13 years of schooling with minimal academic proficiencies. Even historically underachieving students will achieve at substantially higher levels. Or at least that is the current stance of educational policy makers. It is the children of the poor who currently are most likely to fail to achieve current standards in U.S. schools. Poor children are dramatically overrepresented in special education programs (Wagner, 1995), and they are also the target population of the federal Title I program. They are the children most likely to be retained in grade and to leave school without a diploma. Because children of color are three times as likely to live in homes with family incomes below the federal poverty line, they are disproportionately represented in the ranks of children having difficulty.

AMF: And poor children and children of color are most likely to be penalized under the new standards movement. As Ron Wolk (1998), the former editor of *Education Week*, said in a recent commentary, education

policy is on a "collision course with reality" (p. 48). Students from low-income communities have been unlikely to meet the historical minimal standards, so how can these same students be expected to meet even higher expectations for achievement? Further, we are holding students accountable for ***a thinking curriculum*** without having put in place a pedagogy that will enable such learning.

RLA: A carrot-and-stick approach seems to be the prevailing policy.

AMF: I understand the stick: accountability in the form of public scorn and public takeover of low-performing schools. Improving such schools is an undeniable moral imperative, a Deweyan challenge from the turn of the century—we must offer all children the schools we want for our own.

Beleaguered teachers and administrators are desperate for *programs that work*, to use a current phrase. I guess the carrot offered to struggling school administrators and teachers is a loosely defined research base for choosing one program or set of materials over another, and, unfortunately, we researchers have gotten into down-and-dirty mudslinging to support these district shopping trips. It should come as no surprise that faithful implementation of a coherent instructional program, such as that of Success for All (SFA), where none existed before, will improve reading achievement. Bob Slavin wrote in an evaluation of the IBM Write to Read program (1991) that when a program is compared with nothing, the intervention program will post better results.

RLA: Ah, but the question: Is SFA a carrot that actually improves achievement? Or, more accurately, considering the financial investment, is SFA a cost-effective way to improve achievement? I think the answer is probably not. Venezky's (1998) analysis addressed the question that way. It is true that children attending SFA schools read a bit better, relatively, than the kids in the control schools, but their achievement remained incredibly low in absolute standards (about 2.5 years below grade level at the end of elementary school). Personally, I don't think Slavin's genius is in curriculum design. Rather, what he understood and what the initial SFA design achieved was a restructuring of resources so that tutoring, parent involvement, and increased reading instructional time were accomplished in schools where most of the children desperately needed access to more and better teaching. The mistake Slavin made, I think, is that he came to depend increasingly on materials to teach, and the SFA effort became increasingly standardized so that local adaptations were discouraged.

But I do agree with you that many teachers, many administrators, and the American Federation of Teachers (AFT) all seem to see SFA and some other programs as a carrot. But I don't think this is because they believe that these programs will actually raise achievement. Instead, these supposedly proven programs will be the new fall guys—something else to blame for the failure to educate disadvantaged children. After these programs are implemented, continuing school failure can be blamed on the program because it was supposedly a program that worked. Accepting mandates for implementing proven programs will provide teachers and administrators with an alternative defense. In essence what the AFT seems to be saying is "Sure you tell us what to do—minute by minute, day by day, and we will do it. But then don't blame us if we follow orders and implement these programs and achievement fails to improve. We did what we were told. It must be that the programs were badly designed or these kids just cannot learn."

AMF: I am not that skeptical of the AFT. I understand that schoolwide curriculum reform, like SFA, is a preferable alternative, in the AFT's view, to state or city takeover of low-performing schools and the bad publicity and loss of confidence that attend the teaching profession whenever this happens. I submit that when programs that work have improved achievement in low-performing schools, there was no coherent reading program to speak of and little professional development for teachers prior to the new program implementation. At least SFA and other such programs give teachers a running start: SFA provides the curriculum materials and actually supports teachers in curriculum implementation.

The bleak scenario that you described earlier could happen, but it is as likely that an explicitly scripted program would work, as DISTAR has at Wesley Elementary in Houston, Texas, despite demoralized teachers and against all odds (Palmaffy, 1998). In this scenario, student learning would transform teacher and community expectations, as it has at Wesley. Although highly structured reading programs are surely not the ideal—expert teachers are the ideal—if these approaches support some teachers in some contexts, and children learn to read, why are we throwing mud on them? Children cannot wait—they must learn to read with the teachers they have.

RLA: There just is no consistent evidence such programs do work, and the little research available has not been conducted by disinterested parties (Stahl, Duffy-Hester, & Stahl, 1998). I am not surprised when someone, somewhere manages to implement a program—any program—successfully. Virtually every curriculum approach used in the First-Grade Studies worked in some classrooms (Bond & Dykstra, 1967). But every program studied did not work well in some classrooms. I am not advocating the slinging of mud, but I am saying that the evidence suggests that more expert teachers get better results than the inexpert ones and that those who would

suggest that teacher-proofed materials are the new panacea are simply wrong. I am more convinced than ever that instead of offering packaged programs, we need to concentrate our efforts on enhancing the expertise of teachers. Perhaps Robert Rothman (1995) said it most succinctly: "It's the classroom, stupid" (p. 174).

There seems to be growing recognition, among some policy makers, that it is teachers who teach, not materials. Thus, there are calls, like the following one from the National Commission on Teaching and America's Future:

> What teachers know and understand about content and students shapes how judiciously they select from texts and other materials and how effectively they present material in class. Their skill in assessing their students' progress also depends upon how deeply they understand learning, and how well they can interpret students' discussions and written work. No other intervention can make the difference that a knowledgeable, skillful teacher can make in the learning process. (Darling-Hammond, 1997, p. 8)

In an ideal world, in the schools I would design for the 21st century, all teachers would be more expert and have more authority to act on that expertise. They also would work in school environments that were well designed to support this work. That is, schools would have a rich supply of materials for teachers to select for instructional use. School days would be less fragmented and provide teachers and students with long blocks of uninterrupted time for reading and writing activity, time to do the work of schooling. Schools would be collegial places where the professional staff worked with one another to develop their expertise and improve their teaching.

AMF: I hope that as the SFA developers learn more about teachers' understandings of the curriculum materials and students' responses there will be more opportunities for teachers' learning beyond SFA.

RLA: Well, if I had to select a school design from the catalog of school reform efforts currently operating across the country, I would choose the Basic School (Boyer, 1995) and the Learning Network school designs (Herzog, 1997), blending the two together. In both cases there is a general framework that can guide school reform. But in both cases the reforms are developed more from inside than imposed from outside. In both cases teacher inquiry is an important component of how change proceeds, as is collegial conversation and professional problem solving. In both cases the focus is on improving instruction by fostering teacher development. This approach, of course, seems risky to many policy makers because it acknowledges the importance and expertise of those who work daily with children and turns decision making largely over to the teachers. This exemplifies what Rowan (1990) called a commitment strategy to reform as opposed to a control strategy (where you tell people exactly what to do). He traces the pillar-to-post swings of policy makers between commitment (e.g., site-based management) and control (e.g., mandates for daily phonemic awareness lessons) over the past several decades. I do think that the sorts of schools we will have in 21st century will depend largely on whether policy makers decide to invest in fostering commitment to reform as opposed to trying simply to mandate it.

For instance, right now, the new standards movement seems designed to redefine the nature of academic work, and that seems to me another area of contention in educational reform. The debate was perhaps best characterized by a candidate for the post of state superintendent of instruction, who, in criticizing the state social studies standards, vowed that if elected, kids would learn important facts—like the capitals of the 50 states. She was not elected, however. Nonetheless, there are influential figures, E.D. Hirsch (1996) comes to mind, who advocate the teaching of facts for item-based learning goals. Conversely, there are folks who advocate for inquiry-based education and downplay the importance of facts.

AMF: Linda Darling-Hammond, whom you quoted earlier, has said that the reforms of the last millennium, although almost indistinguishable from those of the present in the emphasis on thoughtful literacy, failed to survive because teachers of that era were not prepared to teach within a constructivist pedagogy that holds the academic curriculum and the needs of learners in equal sway. Even now, lest history repeat itself, Darling-Hammond (1996) warned us to consider the complex pedagogy teachers need to meet the goals of the new standards movement:

> [Curriculum reformers] fail to consider that teachers teach from what they understand and believe about learning, what they know how to do, and what their environments will allow. (p. 9)

Enacting change is complex, and there are few absolutes. Teachers need support, and the kind of support depends on what they know and understand and believe, and on the context of their practice.

RLA: Agreed. Now, this might be a good point to raise the issue of the potential role of technology in learning to read. Having lived through an era of unfulfilled predictions as to how, first television and then videotape recordings were going to transform curriculum and instruction, I cannot help but be pessimistic about the influence of new technology on schooling, especially on classroom lessons. I suppose that if an inquiry-based education becomes the preferred curriculum model, then the Internet might play some substantial role. I can al-

most imagine classroom-based tailored testing on computer much like the recent versions of the Graduate Record Examination. I don't think computer technology will have much impact until workstations are built right into student desks. At that point, however, the computer might become a substitute for the textbook and the worksheet, and then the dominant pattern of instruction could continue. But I'm not sure if that should be seen as progress.

AMF: Right now I see technology as another way to privilege those who have and to disadvantage those who have not. The issue is access. I am thinking here of out-of-school use: roaming the Internet at home, e-mailing friends, practicing for college entrance exams, composing and revising homework assignments, doing phonics. Of course, we all say that technology has enormous potential—it does, but for whom? Before Bill Gates finishes the wiring of community libraries, perhaps he could find a way to build and wire a library in one of the many low-income communities without one, and for those low-income communities with libraries, find a way to keep them open more than 2 or 3 hours a day.

RLA: The polls show public support for increasing access to technology in schools, so maybe the current inequities will diminish. But the polls indicate an increasing approval for another educational reform: privatization of public education through vouchers and charter schools. I worry that such reforms may result in a balkanization of not only schools but also society in the U.S. We haven't really discussed the contribution public education has made to the civil nature of this melting pot of a nation. I worry because I think we are already too stratified on economic factors and because the trend toward greater income separation between high- and low-income families has been accelerating. Although our schools are too economically and racially segregated, I do think the notion of the *common school* experience is a useful ideal for public education.

AMF: Well, Dick, the common school experience seems like just another word for the same-old view of the world that most of us experienced in school. And communities and the schools within are already balkanized. Fortunately for us and our children, the schools in our community are good ones. Bethlehem Central High School was ranked by *Newsweek* (Mathews, 1998) as one of the 100 best public high schools in the country; the elementary schools in our community have been similarly honored. U.S. public elementary and secondary schools in middle-class communities are excellent, better than private schools, and possibly the best public schools in the world. A related article in the same issue of *Newsweek* said that the most successful schools in large urban areas are frequently parochial, and these schools are not effective because of the religious connection, but because of their smaller size, the strong sense of community, the shared values of high academic goals, and the expectation of service to the neighborhood community.

These are the schools we, as a society, should want for all children. I have to believe these are the schools that the National Congress for Public Education celebrated last year in Washington, DC.

Unfortunately, other public schools in the U.S., those serving children from impoverished communities, are rarely as good as schools in middle-class communities. Why should poor children be trapped in bad schools? It seems to me that those who inveigh against charter schools or tutoring vouchers for poor families are not supporting children, but rather, a principle (that of public education as a common good). Forgive me for saying this, but it seems racist and elitist to support public school policies that deny poor and minority children an education comparable to that of middle-class children. School choice will be the civil rights issue of the millennium. For a civil society, it matters not at all that the society is diverse, only that it be just and accord all its children the same opportunities to learn.

RLA: I agree with your argument up to the point where you decide that a common public education is an unsalvageable ideal. The reason that the achievement gaps between more and less advantaged children have been narrowing is that we have actually made some progress in reducing the discrepancies you rightly denounce. But I worry also that schools are being saddled with a baggage not of their making—a baggage they cannot and should not have to carry alone. Coles (1998) noted that politicians are cheered by educators' endless rancorous debates about the one best way to teach beginning reading because, in his view, that debate allows them to continue to ignore the larger and more expensive-to-implement social factors that contribute to the likelihood of children's school success.

I was stunned by the implications of a recent large-scale longitudinal study of more and less advantaged children (Entwisle, Alexander, & Olson, 1997). The researchers found that the achievement gap at sixth grade—almost 3 years' difference—between these two groups of children could be accounted for by the achievement differences children arrived at school with and by accumulated summer reading loss! By assessing achievement twice a year, the researchers demonstrated that learning across the school year was comparable for the two groups of children. Schools did not help the disadvantaged children catch up, but when the children were in school they fell no further behind either. Entwisle and her colleagues concluded,

Of the many ways to improve the school climate in poor neighborhoods, the main one is to correct the mistaken but politically correct perception that these elementary schools are falling down on the job. (p. 164)

They also argued for substantial investments in urban community development—development of opportunities for poor children to have a childhood more like those middle-class children have outside of school. I am quite sure they would support your call for better stocked, better staffed, and more accessible public libraries in economically disadvantaged communities. However, vouchers and charter schools seem like the perfect political solution—you just move the same money around a bit and continue to blame the teachers, the unions, and the parents when things just get worse for the most vulnerable children and their families.

AMF: I am not persuaded by Entwisle and colleagues. I believe that schools can and must make a difference in the lives of all children, and if the schools we have do not support and inspire children from poor communities to be all they can be, then as educators, we have a moral imperative to create schools that do.

RLA: So I guess the answer to what sort of schools will we have in the 21st century can be best stated as "It will depend." It will depend on the decisions we as a society make about what it means to teach and what it means to learn and to be literate, and whether schools are seen as important in achieving the ideals of a just, democratic society.

AMF: Indeed.

AUTHOR NOTE

The preparation of this article was supported in part by funding under the Educational Research and Development Program (Grant # R117G10015) as administered by the Office of Educational Research and Improvement, U.S. Department of Education. The article reflects the interpretations and opinions of the authors and does not necessarily reflect the positions or policies of the sponsoring agency.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Children's literature and reading instruction: Past, present, and future

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When the editors of *Reading Research Quarterly* invited us to speculate on the topic "Children's Literature and Reading Instruction in the Next Millennium," we were intrigued. We recognized that the question of whether children's literature is a central, essential material for reading instruction (we will argue that it is) is far more interesting today than it would have been two decades ago when the material that dominated U.S. reading instruction was basal readers. We argue that materials teachers use for reading instruction today are considerably different from those that were used for reading instruction for nearly the entire 20th century. Unlike their colleagues from earlier parts of the century who used basal readers filled with contrived texts, teachers of the current decade have relied more on literature for reading instruction. In order to show how and why literature has moved from the edges of reading instruction to its center, we examine some of the forces that have led to this dramatic change, discuss the current challenges to literature, and, finally, speculate on what lies ahead.

Literature and reading instruction: A historical perspective

During the 20th century, basal readers developed for the purpose of teaching children to read have dominated U.S. reading instruction (although the term *basal* was not coined until well into the 20th century). In this section we take a historical look at the contents of these readers, and then we examine two trends that help to explain why such readers have been the mainstay of reading instruction throughout much of our history: (a) the early paucity of children's literature, and (b) influential professional recommendations about reading instruction.

Looking inside the readers of yesteryear

Across the years there have been some dramatic changes in the contents of basal readers. Unlike the basal readers of this century, in the earliest periods of our history the contents of readers typically reflected beliefs about the purposes of education. In her history of reading instruction in the U.S., Nila Banton Smith (1986) identified a number of broad periods in reading education from 1607 through 1965. The labels she assigned to the early periods reflect beliefs of the day about the goals of education, and those same labels aptly describe the contents of the readers used during the periods.

The earliest period Smith identified (1607–1776) was "The Period of Religious Emphasis in Reading Instruction," and the readers used in this period emphasized religious instruction. For example, *The New England Primer* (1727), the first reading book designed specifically for the American colonies, contained alphabet verses with religious and moral messages, Bible passages,

the Lord's Prayer, and the Apostles' Creed. Only one speller during this period, *The Child's New Plaything* (1750), included what we would consider children's literature today, and only three such stories were included at that— "Earl of Warwick," "St. George and the Dragon," and "Reynard the Fox."

The next period Smith identified was the "Nationalistic-Moralistic Emphasis" (1776–1840) during which the nationalistic aims and moral concerns of the period strongly influenced the selections included in reading texts. One of the widely used texts of the period was Noah Webster's (1798) *The American Spelling Book*, but as with other texts of the period little of what we would today consider literature was found in Webster's text. Of the 158 pages in *The American Spelling Book*, only four pages were devoted to fables, four pages to realistic stories, and half a page to poetry. However, in the subsequent "Period of Emphasis Upon Education for Intelligent Citizenship" (1840–1890), patriotic and moralistic reading selections almost disappeared from readers, which were instead filled with selections written primarily for the purpose of preparing students to "discharge the duties of citizenship" (Smith, 1986, p. 75).

The content of basal readers changed dramatically in the period from 1890 to 1910, which Smith called the "Period of Emphasis Upon Reading as a Cultural Asset." Concern with cultural development led to calls for using literature in readers and for promoting literary interest and appreciation. Professional textbooks on teaching reading, which first appeared during this period, were filled with pleas for the use of literature. In his professional book, McMurry (1899) described preferred reading materials of the day:

> With the increasing tendency to consider the literary quality and fitness of the reading matter used in school, longer poems and stories like "Snow Bound," "Rip Van Winkle," "Hiawatha," "Aladdin," "The Courtship of Miles Standish," "The Great Stone Face," and even "Lady of the Lake" and "Julius Caesar" are read and studied as complete wholes. Many of the books now used as reading books are not collections of short selections and extracts, as formerly, but editions of single poems or kindred groups, like..."Gulliver's Travels" or a collection of complete stories or poems by a single author, as Hawthorne's "Stories of the White Hills".... Even the regular series of readers are often made up largely of longer poems and prose masterpieces. (p. 48)

Smith also noted that during this period teachers used supplemental reading materials. Older students had access to classic works of literature, while additional readers, containing stories such as "The Three Bears" and "Jack and the Beanstalk," were typically made available for younger children. In addition, pioneer literary readers appeared such as *Stepping Stones to Literature* (Arnold & Gilbert, 1897), which contained nursery rhymes like "Jack and Jill," ana "Baa, Baa, Black Sheep," and old tales like "The Tortoise and the Hare."

In many ways the thinking in this brief period of American reading instruction resonates with contemporary thinking about the place of literature in reading instruction. However, by 1910, the emphasis on literature in the field of reading had faded and was not to reappear in any significant way for the better part of the century as what Smith called the "Initial Period of Emphasis Upon Scientific Investigation in Reading" began. During this time the contents of readers reflected what researchers had come to understand about the nature of text, which would support learning to read rather than the broad educational goals of society. This is not to say that literature was totally forgotten by all educators; rather, two highly specialized fields appear to have emerged—one focused on reading instruction and the other on children's literature (Martinez & Roser, 1982). These two groups, with their distinct professional interests, formed separate professional organizations with too few bridges between them (Walmsley, 1992).

During the "Initial Period of Emphasis Upon Scientific Investigation in Reading," reading educators openly criticized the literary diet of the previous era and called for factual materials that readers would likely encounter in "practical life reading" (Smith, 1986, p. 172). More important, during this and subsequent periods, reading research flourished, and it was this research—rather than beliefs about the purpose of education—that began to have the greatest impact on the design and content of instructional readers. Smith identified a number of innovations that had a direct impact on the nature of the selections included in readers: (a) the emergence of preprimers and readiness materials, (b) the use of word lists as the basis for selecting story vocabularies, (c) the reduction of preprimer and primer vocabularies, and (d) the increase in the repetition of vocabulary. At beginning levels these features resulted in contrived reading selections that were written in-house by publishers for the purpose of teaching children to read.

Through the 1950s, the content of basal selections was typically narrative in nature and depicted the life of white, middle-class suburban families, but gradually broadened to wider community circles (Hoffman et al., 1998). As criticisms about the quality of selections and lack of diversity in readers were raised in the 1950s and 1960s, publishers responded by portraying somewhat more diverse lifestyles and roles and by including more literature excerpts or adaptations of recently published children's literature. However, selections for beginning readers continued to be written in-house. Despite these

alterations in basal reader content, basals of the later part of the 20th century remained essentially unchanged.

Based on their critical analysis of 10 series of basals published between the years 1981 and 1986, Goodman, Shannon, Freeman, and Murphy (1988) found that at early levels most selections were written specifically for inclusion in the basal, and when children's literature was included, it was typically adapted by the publisher. Adaptations either enabled the selection to fit the readability and skill criteria used by the publisher or made the selection "fit standards of acceptability for content, language, and values" (Goodman et al., 1988, p. 60). Almost all selections were adapted, some only minimally, but most often the changes were so extensive that Goodman et al. argued that the original authors would likely not have recognized their own work.

Paucity of children's literature

Why have basal readers so clearly dominated U.S. reading instruction? Certainly books for children—what Darton (1966) defined as works written for the purpose of giving children spontaneous pleasure—have been written since at least the 18th century in England. However, relatively few books for children were published in the 18th, 19th, and even the beginning of the 20th century, and it was this paucity of children's books in print that forced educators for many decades to rely on readers. Even as increasing numbers of children's books were being published in the 20th century, teachers frequently did not have ready access to them, even in school libraries. Although school libraries were funded as early as 1838 in New York State, it was not until the passage of the Elementary and Secondary Education Act in 1965 that libraries became a reality in many schools in the United States (Huck, 1996).

Professional recommendations

The lack of children's literature can explain the dominance of readers throughout much of our history, but by the 1950s children's literature had come of age, and federal funding for the purchase of books for use in schools (Elleman, 1987) was becoming increasingly available. There were occasional periods in the first 75 years of this century when there was increased interest in the use of children's literature for reading instruction. For example, the individualized reading movement, with its concomitant use of authentic reading materials, first emerged in the 1920s through the Winnetka plan and was again espoused by Veatch in the 1960s (Huck, 1996). Nonetheless, the clear dominance of basal reading programs throughout most of the century (Goodman et al., 1988; Shannon, 1982) meant that authentic children's literature was not central to reading instruction in the U.S., even when availability was no longer an issue. We believe recommendations by prominent professionals in reading methods textbooks account, at least in part, for this state of affairs.

Reading methods textbooks first emerged in the late 1800s and since that time have played a major role in teacher education. Publishers of textbooks, then as now, sought authors who were influential and whose recommendations would be widely read (market considerations being important then as now), and during much of this century those recommendations about reading instruction supported the central role of basal reading material in reading instruction. Authors varied in the emphasis they put on the use of literature in the reading program and in the amount of description they provided for the teacher-in-training about using literature as a part of the reading program. Nonetheless, influential reading methods textbook writers, with one very early period of exception (Martinez & Roser, 1982), primarily emphasized teaching reading using basal reading materials, with literature playing a peripheral role for enjoyment rather than for essential instruction.

When reading methods textbooks first began to appear, prominent educators such as Arnold (1899), Huey (1908), and Taylor (1912) spoke with one voice in recommending that literature play a central role in teaching reading (Martinez & Roser, 1982). However, this early period of focus on literature-based reading instruction was short-lived. Methods textbooks published in the 1920s and 1930s largely ignored literature although they sometimes included a description of a classroom library table that children could visit after all other work was completed (Brooks, 1926). In these textbooks, literature was moved out from the center of reading instruction to its very edge, only to be enjoyed when the real work of learning to read was completed. Patterson (1930), for example, recommended that teachers provide children with opportunities for wide reading, but warned teachers not to let children dawdle or fall into the evils of poor eye movements. Patterson believed that literature should be avoided for other reasons:

> ...it would seem rather futile, if not worse, to spend all the pupil's reading time with the pleasure of poetry and imaginative literature... [it] should be evident to all teachers as it is so clearly evident to most practical people outside of the schoolroom that children should be taught such skills as will enable them to efficiently to do the necessary reading of everyday life. (Patterson, 1930, p. 220)

However, not all textbook authors of the 1930s and 1940s eschewed literature. Paul McKee's (1934) title suggests his strong belief in the vital role of literature: *Reading and Literature in the Elementary School.* Similarly,

David Russell (1949) in *Children Learn to Read* described literature's important role in enhancing personal growth. He offered numerous literature-based activities and lists of recommended books. However, the majority of content in both these textbooks focused on the skills of reading and the use of basic reading materials toward that end.

Dolch (1955) best summed up the thinking of reading professionals in the 1950s. He recommended that basic readers be used in a reading study period where the teachers help children accomplish a complete reading ("work out the words and discover what sentences mean"). But, he warned, "It will be work and not too much fun.... It has been learning to read, not reading" (p. 95). In contrast, Dolch suggested that daily free reading periods were critical so that children would also learn that reading books was enjoyable and meaningful, not just hard work.

Our examination of textbooks published in the 1960s and 1970s suggests that this period was more of the same: skills first, then literature. Literature was considered a *part* of the reading program, not *the* program. However, literature continued to play a role in developing enjoyment and appreciation. For example, Zintz (1970) argued that children, to some degree, needed all of the skills of word identification, comprehension, study skills, and oral reading in order to develop habits of book use. Not surprisingly the word *literature* does not even appear in the index of this textbook, although Zintz does describe the individualized approach to reading. He does not mention a classroom library, although he does describe the importance of a school library and of children owning their own books.

In her first edition of *Teaching Them to Read* (1970), Dolores Durkin recommended that teachers supplement their basal readers with collections of literature published by textbook companies. She made many references to the importance of reading aloud to children and keeping literature close at hand. Although Durkin often referenced children's literature and clearly believed in its importance, she also reminded teachers that they must keep in mind the distinction between materials used to teach reading skills (basals) and materials used as literature.

Several textbooks of the 1960s and 1970s did challenge basal reader instruction. For example, Lee and Allen (1963) and Stauffer (1970) advocated a language experience approach, and Veatch (1968) argued for individualized reading instruction with literature. But basal readers remained relatively untouched either by the challenges of language experience, individualized reading, or linguists' entry into the discussion about reading instruction (Fries, 1962). As Morris (1998) put it, "Like 'Old Man River,' it [basal readers] simply widened its banks a little—incorporating suggestions for more intensive phonics—and kept on rolling" (p. 7).

Literature and reading instruction: A contemporary perspective

While basal readers were the materials of choice for reading instruction throughout most of U.S. history, the view from the 1990s is dramatically different. In this section we examine the role that literature plays today in reading instruction.

Use of tradebooks to teach reading

Recently, Baumann, Hoffman, Moon, and Duffy-Hester (1998) conducted a replication of the research done by Austin and Morrison and reported in *The First R* (Austin & Morrison, 1963). Their large-scale, national survey queried teachers from prekindergarten through fifth grade about issues and practices related to elementary reading instruction. Their results reveal that literature in the form of tradebooks plays a far more significant role in reading instruction in today's classrooms than it did in the past. They found that the large majority of respondents believed in a balanced approach to reading instruction that combined skills and literature. Among their key findings related to teachers' use of children's literature are the following:

- Overall, 94% of teachers held the goal of developing readers who were independent and motivated to choose, appreciate, and enjoy literature.
- Most first-grade teachers reported moderate, predominant, or exclusive use of Big Books (84%) and picture tradebooks (81%); similarly, 72% of fourth-/fifth-grade teachers reported moderate or greater use of trade chapter books.
- PreK–2 teachers regularly read aloud (97%), accepted invented spellings (85%), and engaged children in oral language (83%), journal writing (78%), and reading response (69%) activities.
- Grades 3–5 teachers regularly taught comprehension (89%) and vocabulary (80%), provided literature response activities (79%), and used tradebooks instructionally (67%). (p. 641)

Baumann and his colleagues found that most teachers struck a balance between the use of basals and tradebooks. Only 2% of the teachers indicated they relied exclusively on basals, and none of the first-grade teachers reported an exclusive reliance on basals. Conversely, only 16% of teachers reported an exclusive use of tradebooks for reading instruction. Rather, teachers typically reported using basals supplemented by tradebooks (56%) or tradebooks supplemented by basals (27%). When the researchers asked the respondents if they had made any

major changes in their reading instruction in the past few years, 69% of the teachers indicated they had. When asked about the nature of the changes, the teachers "often reported changes that involved a philosophy or programmatic shift (e.g., movement to trade books, whole language, balanced instruction, integrated instruction)" (p. 647). It is important to keep in mind when interpreting the results of this survey that the very nature of many basals had already evolved into literature-based readers.

The results of this survey reveal a very different picture than that of earlier decades in which the use of basal readers accounted for between 90 and 95% of all reading instruction in U.S. elementary schools (Goodman et al., 1988; Shannon, 1982). Clearly, children's literature has become increasingly central to reading instruction in the 1990s, as teachers incorporated tradebooks into their programs and as many basal reader programs themselves shifted to literature. This trend was also reflected in the boom in children's books sales in the 1980s. Sales in children's books doubled from 1980 to 1985 and doubled again from 1985 to 1990 (Roback, 1990a).

Changes in basals of the 1990s

In the late 1980s and early 1990s, publishers of basal programs also responded to calls for literature-based reading instruction. The Texas Education Agency's Proclamation 68 (1990) called for the inclusion of quality children's literature—unedited and unabridged—in new programs to be adopted in Texas. Five publishers responded to this proclamation. McCarthey and Hoffman (1995) conducted an extensive comparison of older first-grade basals (1986/87) and the newer first-grade basals (1993) produced in response to Proclamation 68. They found that the total number of new words in the new first-grade readers was less than in older readers, but that there were more unique words in the new readers than in the older ones reflecting the lack of vocabulary control and repetition in the new readers. The new readers were more diverse in terms of genre and format (e.g., use of big books, tradebooks, anthologies), and there were far fewer adaptations of children's literature in the new programs.

McCarthey and Hoffman (1995) also found that the newer materials were of higher literary quality, as judged on the basis of a holistic scale that took into account content, language, and design. In particular, they found that "the new basals appeared to contain selections with more complex plots and more highly developed characters; the selections required more interpretation on the part of the reader than the old" (p. 73). While selections in the new first-grade basals included far more predictable features like repeated patterns, rhyme, and rhythm, the decodability demands of selections in the new basals were much greater than of those found in the older basals. In addition, the researchers found differences in design features with the newer basals featuring a more creative interplay of text and illustration that is more akin to contemporary picture books (McCarthey et al., 1994). McCarthey and Hoffman (1995) concluded that "innovations were offered on a scale unparalleled in the history of basals" (p. 73).

In a similar study, Reutzel and Larsen (1995) examined a random sample of selections at first-, third-, and fifth-grade levels from the five top-selling basal programs published in 1993 to determine if the basals were "free of alterations, adaptations, and omissions of illustrations, language, design, function, role, and purpose" (p. 496). They found that 35% of the sampled selections contained text adaptations, with approximately a third of those adaptations resulting from selections being excerpted from full-length children's novels. Most adaptations did not involve changes in storyline or wording.

The majority of adaptations Reutzel and Larsen (1995) identified were illustration changes with illustrations being omitted, cropped, or reduced in size. With the exception of one selection, they found differences between the original book and the basal version in the print-to-picture format—differences that can be especially significant in picture books, a genre defined by the interplay of text and illustration. These findings dovetail with those of McCarthey and her colleagues to confirm that the published reading materials produced in the 1990s highlighted authentic children's literature to a far greater degree than had occurred over the past century.

Currents of change

In the decade of the 1990s, commitment to the use of literature for literacy instruction has been greater than at any other time in our history. We believe that understanding the future of children's literature in literacy instruction requires an understanding of how this change came about. However, because of the complexity of the trends impacting literature use in reading instruction, we discuss a number, but not all, of the currents that we believe have combined to bring literature to the forefront of literacy instruction. The relationships among these currents are complex, and we do not try to answer the "chicken or the egg" question. Rather, we attempt to describe what we believe are some of the major currents that have come together to bring about this powerful tide.

Early fluent readers, early writers, and storybook reading research

The critical importance of literature in young children's literacy development emerged, in part, from several related lines of research. In the early 1970s researchers

became interested in young children who learned to read and spell before entering school (Clark, 1976; Durkin, 1966; Read, 1971; Teale, 1978) and in preschoolers' experiences with literature. Beginning with White's (1954) landmark case study of her young preschooler, many researchers examined the nature of young children's engagement with literature (Crago & Crago, 1983; Martinez, 1983; Snow, 1983). Together, these studies demonstrated that as children interacted with their parents reading literature, they were not only constructing an understanding of the literary work at hand but also learning ways of making meaning and taking up the literary structures, language, and themes found in literature (Applebee, 1978; Cochran-Smith, 1984; Lehr, 1988; Pappas & Brown, 1988; Purcell-Gates, 1988). Similarly, researchers documented that young writers were active learners who notice the print around them and construct understandings about specific print forms and their functions (Bissex, 1980; Clay, 1975; Harste, Burke, & Woodward, 1983). Such research pushed aside notions that young children needed to get ready to read and write but rather were emergent readers and writers whose development reflected the nature of their experiences with specific storybooks, informational books and texts, and writing rather than with contrived readiness materials. Holdaway's (1979) shared reading of Big Books and Clay's (1979) Reading Recovery approach were natural complements to the conclusions drawn from research on emergent reading and writing.

Teacher-led movements

Beginning in the late 1970s and continuing into the 1990s, at least three movements led in part by teachers put literature center stage in reading and writing instruction: (a) the reading-workshop approach to reading instruction, (b) shared reading of predictable Big Books, and (c) whole language. The reading-workshop movement emerged from efforts of teachers such as Atwell (1984, 1987), who borrowed theory and technique from the writing process movement. Similarly, Routman's (1988) description of first-grade instruction based on shared reading and guided reading of predictable Big Books (adapted from Holdaway, 1979) influenced the way many teachers approached beginning reading. Shared reading and the reading-workshop approach were embraced by a larger teacher movement, whole language instruction. (While this movement is critical to understanding literature's current dominant role in reading instruction, a thorough description of its influence on literature-based reading instruction is not possible here; see the entire issue of *The Elementary School Journal*, 1989, vol. 90, no. 2.) Whole language, with its emphasis on the extensive use of authentic literature, student choice and ownership, language across the curriculum, integration through the use of thematic units, and integration of reading and writing, contributed to thousands of teachers seeking out quality literature for their reading programs (Goodman, 1986; Newman, 1985).

Salzer (1991) described the whole language movement as the most widespread and fastest growing grassroots curriculum trend in U.S. education. TAWL (Teachers Applying Whole Language) groups began to appear in the late 1970s and increased rapidly throughout the 1980s. Smith (1990) attested to the interest in these movements by noting that in 1989 two of the five most frequent requests for information through the ERIC Clearinghouse included "teaching children to appreciate literature" and "defining whole language." He concluded that "integrating language activities with literature seems to be the predominant concern of the writers, speakers, and information seekers in our profession" (p. 680). These movements had a dramatic impact on teachers' use of tradebooks to teach reading and on the basals published in the first half of the 1990s.

Changes in the world of children's literature

Unlike the beginning of the 20th century, the 21st century will open with ample supplies of visually appealing children's book titles from which teachers and children may choose. At no other time in history has so much children's literature been available; in the 1960s approximately 2,000 children's books were published each year. In contrast, in the 1990s approximately 5,000 tradebooks for children were published annually (Cullinan & Galda, 1998). From 1980 to 1988 there was a 73% increase in the output of children's titles ("Top Selling Children's Books," 1990), and today there are over 70,000 children's books in print (Huck, 1996). In addition, improvements in printing technology have resulted in an explosion of full-color picture books with great child-appeal.

We can also identify five trends in children's literature that have met critical needs in literacy instruction: (a) books to move children into beginning reading, (b) books to sustain and expand beginning readers, (c) books to make the transition from easy-to-read picture books to longer and more complex chapter books, (d) books to nourish children's interest in the historical and natural world, and (e) books that reflect the diversity of children and their experiences.

In the early 1980s there was a striking increase in the numbers of predictable books published that support children's movement into beginning reading (Temple, Martinez, Yokota, & Naylor, 1998). Many of these predictable titles were published in Big Book format. Equally important, the number of easy picture books with literary merit written by well known children's authors such as

James Marshall, Cynthia Rylant, and Betsy Byars also dramatically increased (Cullinan & Galda, 1998). These books sustain and extend beginning readers. The numbers of easy-to-read chapter books that included "strong, involving stories with well-honed characters and conflict-rich plots" (Elleman, 1995, p. 156) also dramatically increased. These easy-to-read chapter books, many of which are part of a series, filled the niche needed for transition from easy picture books to more complex chapter books.

Two related trends in children's literature have represented important developments for educators teaching reading at the upper elementary level. The first trend is the growth of well-researched historical fiction that began in the 1980s; this trend has continued into the 1990s and even broadened with the strong emergence of historical fiction in picture book format (Elleman, 1987, 1995; Martinez, Roser, & Strecker, in press). The growth of nonfiction tradebooks in recent years has been even more striking (Donahue, 1990). Elleman (1995) has noted a rise in quality nonfiction that is well researched, well organized, and stylistically engaging, as well as an increase in the range of nonfiction books to include more photo essays, more multicultural nonfiction, and books that focus in-depth on a single person or topic. In addition, she noted that in 1995 some 700 different nonfiction series for children could be found in the database of *Booklist*.

A notable increase in multicultural literature beginning in the mid-1980s and continuing into the 1990s is yet another trend in children's literature that has impacted teachers' use of literature for reading instruction. Educators involved in both the whole language and literature-based reading movements have recognized the importance of reading materials relevant to children's lives and have sought out multicultural literature for use in their literacy programs.

The profession's reconceptualization of literacy and literature

While reading methods textbooks in the 1980s, with notable exceptions, continued to focus on teaching skills, other professionals during this time were writing about innovative instructional techniques that captured the unique power of literature. Professional journals offer the most direct way of documenting the shift in thinking of this community. We examined three leading literacy journals published in the last 25 years in order to identify those articles focused directly on children's literature or on some facet of literacy or literacy learning as it relates to literature. In this section we present these findings and reflect on the trends that emerged.

We analyzed 25 years (1974–1998) of three prominent journals—*Reading Research Quarterly*, *Journal of Literacy Research* (formerly *Journal of Reading Behavior*), and *The Reading Teacher*. Articles and regular department-like entries were included in the analysis, but features such as editorials and brief commentaries were excluded. We sought to identify articles that focused directly on children's literature (e.g., content analyses of children's literature or columns reviewing children's tradebooks) or on some facet of literacy or literacy learning as it relates to literature. We examined issues of *Reading Research Quarterly* and *Journal of Literacy Research* and placed articles in one of two categories: (a) those focused on some facet of literacy or literacy learning and instruction as it relates to literature, or (b) those with a specific focus on literary response or literary development. An example of an article focused on literature for literacy learning and instruction was Morrow's (1992) article entitled "The Impact of a Literature-Based Program on Literacy Achievement, Use of Literature, and Attitudes of Children from Minority Backgrounds." An example of an article with a response focus was Golden and Guthrie's (1986) article entitled "Convergence and Divergence in Reader Response to Literature."

Throughout the 25 years covered in our analysis, we identified relatively few studies in *Reading Research Quarterly* that focused on any aspect of literature. From 1974 through 1988, we found only 10 studies related to children's literature (see Table 1). The number of studies focusing on literature increased after 1988; the greatest number of studies (11) appeared in the years from 1994 through 1998 representing 8% of all the studies published in the journal during that time. The most frequent focus of literature-related studies has been on literary response, with the majority of these studies appearing since the mid-1980s.

No literature-related studies appeared in *Journal of Literacy Research* (*Journal of Reading Behavior*) published from 1974 through 1988 (see Table 2). As was the case with *Reading Research Quarterly*, more studies focusing on literature appeared after 1988 with the greatest number (12) published during 1989-1993. Again, most studies focused on literature response.

Due to the journal's largely practitioner audience, a different system for categorizing articles emerged for *The Reading Teacher*: (a) articles focused on literature or an author of children's literature, (b) articles focused on some facet of literacy or literacy learning as it relates to literature, (c) articles focused on literary response or literary development, and (d) articles focused on the use of literature as it relates to goals other than literacy or literary ones (e.g., the use of literature to teach math or social studies concepts or to foster moral development). The picture of literature's importance in reading instruction is more clearly reflected in the number and in the percent-

Table 1 Studies focused on literature appearing in the *Reading Research Quarterly* from 1974 through 1998

Year	Focus on literature and literacy	Focus on literature and response	Total number of journal articles
1974–1978	0	1	89
1979–1983	1	2	143
1984–1988	2	4	113
1989–1993	3	1	101
1994–1998	5	6	136

Table 2 Studies focused on literature appearing in the *Journal of Reading Behavior/Journal of Literacy Research* from 1974 through 1998

Year	Focus on literature and literacy	Focus on literature and response	Total number of journal articles
1974–1978	0	0	167
1979–1983	0	0	151
1984–1988	0	0	86
1989–1993	3	9	104
1994–1998	1	7	108

Table 3 Articles focused on literature appearing in the *The Reading Teacher* from 1974 through 1998

Year	Focus on literature or author	Focus on literature and literacy	Focus on literature and response	Focus on literature and other	Total literature-related articles	Total number of journal articles
1974–1978	55	11	3	2	71	598
1979–1983	49	11	6	17	83	840
1984–1988	57	17	5	6	85	672
1989–1993	67	35	28	11	141	544
1994–1998	75	29	21	11	136	402

age of total articles devoted to literature published in *The Reading Teacher* compared to the two research journals. Across the past 25 years, there has been a dramatic increase in the total number of articles related to literature appearing in the journal (see Table 3). From 1974–1978, a total of 71 literature-related articles appeared representing 12% of the total number of articles. In contrast, 136 articles appeared from 1994–1998 representing 33% of the total number of articles.

Throughout the 25 years, the largest category of literature-related articles appearing in *The Reading Teacher* has been the category focused on children's literature and authors of children's literature (see Table 3). These articles have primarily been reviews of recently published tradebooks or reviews of tradebooks selected as favorites by children or teachers. We found interesting changes across the years in the other categories. Articles focused on literacy learning as it relates to children's literature has been the second most frequently appearing category in *The Reading Teacher.* Included in this group were articles such as "What Will Happen Next? Using Predictable Books with Young Children" (Tompkins & Webeler, 1983) or "Using Predictable Materials vs. Preprimers to Teach Beginning Sight Words" (Bridge, Winograd, & Haley, 1983). During the three 5-year periods extending from 1974 through 1988, the number of articles in this category ranged from 11 to 17. However, from 1989 through 1993 and again from 1994 through 1998, there was a dramatic increase in the number of articles in this category. In the first 15 years of issues that we reviewed there were more articles focusing on the use of literature as it relates to goals other than literacy than articles with

a response or literary focus (25 vs. 14). However, during the periods extending from 1989 through 1998, this trend was reversed as far more articles focused on response were published. In fact, over the past 10 years, there have been almost as many articles focused on response as articles focused on literacy learning and literature.

Our analysis of the articles appearing in key professional journals over the past 25 years reveals a remarkable new interest in children's literature as it relates to literacy processes and literacy learning, an interest that has become increasingly evident over the past decade. The roots of this interest most likely extend back several decades to the late 1970s and early 1980s when notable shifts in thinking about the nature of the reading process were underway—shifts that would lead us toward, though not directly to, a reconceptualization of the role of literature in literacy instruction.

Theoretical shifts

Over the past century there have been many dramatic shifts in theories impacting reading instruction. During the 1970s, researchers began to examine reading from a cognitive and psycholinguistic perspective and conceptualized reading as an active process of meaning construction that occurred as reader and text interacted. Psycholinguistic theory emphasized the value of using authentic text in which readers could process all linguistic cues. However, the early cognitive research on story comprehension, while taking into account text factors (especially text structure), did not recognize the need to investigate readers interacting with authentic literature.

It was not until researchers made shifts toward sociocultural and literary response theory that researchers used literature in their examinations of readers' engagement with and responses to literature. For example, Cochran-Smith (1984) examined preschoolers' storytime interactions with their teachers within the larger social contexts of parents' and the school's value toward and expectation for literacy. She drew upon sociocultural as well as literary theory to explain what she called the making of a reader. As increasing numbers of literacy researchers embraced ethnographic and naturalistic observational methods, they came to recognize the importance of ecological validity including the use of authentic texts (Teale, 1995).

The work of literary response theorists, Rosenblatt (1978) in particular, reminded us that literature (not just any text) and our stances toward literature were critical in understanding readers. By the early 1990s, a significant strand of literacy research had emerged that drew upon the work of reader response theorists and placed great importance on the need to investigate literacy processes and literacy learning in the context of authentic literary text.

Recommendations of professionals

Unlike their predecessors, our analysis of more contemporary reading methods textbooks revealed that a new stance toward literature began to emerge in textbooks written in the 1980s. Mason and Au's (1986) textbook was the first (at least as far as we can determine) to describe new methods of teaching reading in which literature played a central role. They described using Big Books in the teaching of beginning reading, using reading response activities based on Rosenblatt's transactional theory as a framework for enhancing comprehension, reading aloud to children daily, and using a classroom library to extend children's voluntary reading. The message in this textbook was that literature was an effective instructional material and that new methods of instruction could capitalize on the power of literature to teach reading. This message was not taken up fully until nearly a decade later.

Leu and Kinzer's textbook, which is now in a fourth edition (1999), demonstrates the radical shift in recommending that reading be taught mainly from basal materials to mainly from literature. In their first edition (1987) Leu and Kinzer used over 20 pages to describe basal materials and how to supplement and adapt them. They described the individualized reading approach in a little over a page. However, they devoted an entire chapter to literature. They argued: "Literature, therefore, is a unique and powerful tool; it may be used to promote all aspects of comprehension" (p. 241). They described how literature can be used in teaching decoding, vocabulary, comprehension, and more. This reflects a shift in stance from earlier recommendations of professionals that basals were the most effective instructional material for teaching reading, to a stance suggesting that both basals and literature were effective reading materials. The fourth edition of *Effective Literacy Instruction, K–8* (1999) confirms that literature has moved to a central role. In this text, Leu and Kinzer devoted 5 pages to a description of basal reading materials and 10 pages to a description of readers' workshop and response journals. Literature moved from the seventh chapter to the fourth chapter, and the chapter title changed from "Literature: Affect and Narrative Discourse" in the first edition to "The Central Role of Children's Literature" in the fourth edition.

The 1990s editions of textbooks written by Zintz (Maggart & Zintz, 1992) and Durkin (1993) stand in marked contrast to their earlier 1970s editions. Their 1970s stance of skills first, then literature shifted to the 1990s stance of literature front and center. By the 1990s every reading methods textbook we reviewed describes literature-based reading programs and activities such as shared reading and response journals. Textbooks of the 1990s are filled with examples of literature and its use in

teaching reading. However, even into the 1990s there are still voices of doubt. Despite Durkin's (1993) obvious regard for the importance of children's literature in a reading program, she remained skeptical about its use as *the* reading material for instruction. Literature, she argued, can encourage children to want to read and even advance reading abilities. However, she recommended that teachers abandon their basal readers gradually and continue to ask themselves what effect it will have on their poorest readers. (Interestingly, this *watch out for struggling readers* is a current challenge to literature that we discuss later).

While this review is not exhaustive and omits many influential textbooks published in the last 30 years, it has interesting implications. It appears that it was not through mainstream textbook recommendations that changes seemed to be made in the nature of reading instruction and the role of literature in teaching reading. In general, reading methods textbooks seemed to follow cutting-edge teaching rather than initiate it.

Political factors

Political forces emerged in the 1980s that were also responsible, in part, for the emerging role of literature in reading instruction. The California State Department of Education's Reading Initiative (1986) generated interest throughout the country, and a direct outgrowth was the National Reading Initiative, a coordinating and disseminating network that was created to promote reading and reduce illiteracy (Cullinan, 1989). Texas's Proclamation 68 (1990), calling for the inclusion of unedited and unabridged quality children's literature, came quickly on the heels of the reforms in California and resulted in the new generation of literature-based basal programs that were described in a previous section. Today, political forces have become a countercurrent to the literature movement, and we will discuss these political changes in a subsequent section.

Parents as a change force

We believe that parents were also a force that moved the field toward literature-based reading instruction in the 1980s. Baby-boomer parents were more affluent and better educated than previous generations of parents and had more knowledge of child development (Elleman, 1987). Many of these parents also remembered growing up with stories. The stories that baby-boomer parents remembered—stories such as those found in the Golden Books series—might not be recognized as quality literature today. Nonetheless, their fond memories of these stories made them seek out literature for their own children. In fact, a 1990 survey of booksellers revealed that mothers constituted the largest group of customers in children's-only bookstores (Roback, 1990b). This interest in literature also made these parents receptive to the inclusion of literature in their children's reading programs.

The future

We were charged with discussing children's literature and instructional materials for reading in the next millennium—a topic we have succeeded in avoiding for many pages now. Actually, we looked to the past not to avoid talking about the future but to have a basis for doing so. We have witnessed, at the end of this millennium, a revolution in the role of children's literature in reading instruction (McGee, 1992), and we have attempted to describe some of the currents that brought about these changes. Some of these currents have been especially powerful, so powerful that we believe they will continue to carry us forward well into the next millennium. One of these currents is the increasing diversity of the population of the United States. By 2020, estimates place the number of people of color at nearly 50% of the U.S. population (Pallas, Natriello, & McDill, 1989), a 25% increase over the 1990 census figure. We believe that parents and teachers in the next millennium will increasingly demand materials that reflect the diversity of their children's experiences. Equally powerful will be the demands of future parents. As the children who have learned to read through literature (rather than basal materials) become adults and parents, their voices will also join the call for literature as a central part of all instructional experiences.

There are also some relatively new currents that are likely to gain strength and have an impact on instructional materials in the future. Educators have increasingly come to recognize that being literate requires that readers be able to deal with all types of texts, including online texts. With more children having access to home computers and more and more schools providing Internet access in classrooms, online resources are likely to become an authentic literacy material used far more extensively in future reading instruction. For example, recent research has demonstrated that computer exploration allowed young children to develop symbolic concepts that would not be achieved using books or pencil and paper (Labbo, 1996). However, we believe that the literacy potential of online and electronic texts is not, as yet, fully realized. While many interactive CD storybooks are available for young children, some CD storybooks are more supportive of children's comprehension than others (Labbo & Kuhn, 1998). CD storybooks with more integrated interactive features encourage more complex cognitive activities and cohesive story retellings. Similarly, online texts do not yet have the literary qualities of print nonfiction.

In the last decade one of the book genres that has experienced tremendous growth is nonfiction. In its current form, nonfiction even for young readers presents complex information and theories using sophisticated and multiple representations such as graphs, illustrations, and diagrams. This genre has taken full advantage of new technological advances in illustrations to fully engage readers in scientific and historical concepts. The information found in today's nonfiction for children is anything but dry, boring, or simplistic. It presents information from multiple sources and encourages critical thinking about controversial topics. In contrast, online resources do provide children with information and illustration, but the extensive graphic capabilities and even the interactivity of computers have not yet been fully harnessed. Compare the sophisticated computer graphics used in many recent movies to the level of graphics found in many web sites or electronic books. However, we suspect that the sophistication of computer graphics will filter rapidly into everyday use, and we will see enhanced interactivity and quality in the nature of illustrations in both online texts and electronic books. In fact, given the rapid pace of advancements in electronic media, we might even witness book forms of literature moving from the center to the margins of literacy instruction. "When considering the computer's capability to provide a whole library at one's disposal in a single, portable, highly interactive, and increasingly readable device" (Reinking, 1995, p. 21), literature in its book form may well be beloved merely for its nostalgia.

While we anticipate that reliance on authentic materials in both book and electronic form will be the wave of the future, it would be naive not to recognize that political forces are already working as a countercurrent. Beginning reading instruction especially is feeling the impact of this countercurrent. By 1995, the California State Department of Education Reading Task Force was attacking the California Reading Initiative in *Every Child a Reader* (California Department of Education, 1995), declaring literature-based reading instruction to be the cause of low reading test scores in the state—a position that has been seriously questioned (Huck, 1996). The strength of this backlash is undeniable with both California and Texas drawing upon the research of Foorman, Francis, Fletcher, Schatschneider, and Mehta (1998), Lyon (1994), and Moats (1994) and calling for decodable materials for beginning reading instruction in their next textbook adoptions. These calls are particularly compelling given the needs of struggling readers and the strong relationship between early reading difficulties and deficiencies in phonological knowledge and strategies.

Fortunately, as Teale (1995) suggested, this most recent turn in the beginning reading debate is different than previous shifts. He observed that in the past, when a new trend emerged, it overwhelmed other positions. However, in today's debate there are voices of reason on both sides (the code emphasis vs. the holistic emphasis) that recognize kernels of truth in the other side's position. If those voices of reason are sufficiently forceful, then young children's need for authentic literature will be recognized in beginning reading programs of the next millennium (Freppon & Dahl, 1998). In fact, we would predict that the renewed interest in beginning reading with its calls for decodable text are not likely, in the long run, to move in the direction of the contrived linguistic readers of the 1960s. We expect that children's publishers may actually move this debate beyond either the decodable text or authentic literature positions we see today. Just as publishers of tradebooks responded to the greater market created by educators' demands for predictable books in the early 1990s (after all, predictable books were not a new genre), publishers are likely to once again recognize the market for highly engaging and easily decodable texts such as *Pat the Cat* (Hawkins & Hawkins, 1985), and *Sheep in a Jeep* (Shaw, 1986). As in the past, when highly respected authors such as Cynthia Rylant and James Marshall were urged to create easy-to-read beginner chapter books, we expect that editors will seek out writers who can respond in imaginative ways to the needs of early beginning readers.

Still, what ultimately must be more fully developed is a theoretical rationale for why reading instruction *requires* literature. This theory must take us beyond arguing the merits of using literature in reading instruction based on its accessibility, capacity to provide enjoyment, or on its superior literary quality. Professionals have long argued that literature engages our emotions, reveals us as humans, and allows us to connect with all of life's diverse peoples. While these are strong arguments that extend beyond the mere purpose of literature's role in teaching children to read, what is ultimately missing is a theory that would suggest that learning to read *is* learning to read literature (Sipe, in press).

One theory upon which we might draw is reader response theory. From this perspective we have embraced the notion that literacy involves more than comprehending the literary object; that reading involves perceiving the complex relationships offered by multiple perspectives. We are moving toward a definition of reading that moves beyond comprehension and response into what we call deep thinking. Deep thinking requires seeing more than one perspective, searching out a variety of interpretations, and finding compelling connections among and between perspectives, interpretations, and self (Wolf, Carey, & Mieras, 1996).

This broadened understanding of literacy *requires* literature. It suggests that only literature provides the multiple layers of meaning necessary for acquiring the strategies, stances, and ways of deep thinking that we are coming to define as literacy. In the early grades teachers may well choose to have young children reading decodable text on their own as they move toward mastery of the code. However, because much of decodable text (as it currently exists) does not provide multiple layers of meaning, it remains critical that young children also engage with thought-provoking literature in order to nurture the deep thinking that will be equated with literacy in the next millennium. We anticipate that teachers who work with older students will increasingly choose to use complete works of literature rather than excerpts that are currently found in basal readers. While this may mean that upper elementary teachers turn increasingly to the use of tradebooks, it is also likely that basal publishers will reconceptualize the contents of readers of the future by finding ways of making complete works of authentic literature the cornerstone of published programs for older readers. Teachers will increasingly recognize the power of reading across several different, but connected, texts in cultivating deep thinking about both literature and content (Hartman, 1995; Many, Fyfe, Lewis, & Mitchell, 1996).

Another theory we might draw upon to argue for the necessity of literature in reading instruction is genre theory. That is, learning to read and write is, in part, genre specific. We know that young children have far more experience with narrative than with nonfiction, and this is often used as a reason for their difficulty in reading and writing this text in the upper elementary grades. In Duke's (1998) assessment:

> Extensive experience with storybooks, while beneficial in many respects, will not *alone* result in children being able to read and write information books. Learners must have experience with the particular genres in question in order to fully develop the ability to read and write in those genres. (p. 8) (emphasis added)

Research on the effects of preschoolers' experiences with literature suggests that young children do acquire a sense of specific genre. For young children who have extensive and early experiences with literature, reading other texts for beginning reading may not matter. They may already have acquired sufficient genre-specific knowledge, expectation for the multiplicity of interpretation, and experiences moving in and out of literary worlds in order to move beyond decodable texts or other texts similarly designed for reading instruction (Rowe, 1998; Wolf & Heath, 1992). On the other hand, for children with very little literary experience, reading a steady diet of decodable text or other contrived texts without the additional experiences of literature may not result in the reading stances and deep thinking that we will expect in the next century. Of course, new innovations in the next century should push us beyond the either/or choice of literature versus other kinds of texts in beginning reading and beyond. We are confident that theory, instructional practices, and children's literature will continue to evolve into the next century, allowing literature to remain in its current central role in reading and writing instruction.

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Reprinted From Reading Research Quarterly
Vol. 35, No. 1
January/February/March 2000

Equity and literacy in the next millennium

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Scholars have described the history of literacy research in terms of decades (e.g., Pearson, 1986; Pearson & Stephens, 1993), or, occasionally, a century (Venezky, 1983). From these essays, we can identify shifting trends and patterns in defining literacy and related constructs (e.g., context) and in delineating relationships between literacy and language. We found it nearly impossible to project these trends and patterns into the next millennium, given probable changes in the global economy, popular culture, and technology. Yet, some projections seemed undeniable: Our student population will be even more diverse than it is today, the need for critical literacy will grow exponentially, and the interconnections among language, culture, and literacy will become stronger. These changes underscore the importance of ensuring educational equity—meaning equity in opportunity to participate successfully in schooling—so that all students can become productive and contributing members to an ever more complex society. Ensuring educational equity involves helping students become literate in all artifacts of literacy, not only those historically used and present in today's society, but those likely to become prominent in the future.

In the first half of this article we discuss three key groups of participants in the process of literacy education and research—teachers, students, and researchers—and issues of equity that affect each of them. In the second half we focus on changing definitions of literacy, literature, and instruction and explore connections to issues of equity in literacy learning opportunities. We end with implications for research.

The key participants

There are many participant groups, each contributing in different ways, that should be intimately involved in decisions about literacy instruction and texts. Groups include teachers and students most directly, as well as administrators, parents, policy makers, community members, and researchers. As a field, we must understand the demographics of these groups and implications for literacy education. Space does not permit an analysis of all groups, so we have chosen to highlight three: students and teachers, because of their central position, and researchers, given our own roles and the *RRQ* readership. In discussing demographics in the United States, terms such as *minority students, diverse learners, people of color, underrepresented groups,* and so forth, reflect our efforts to recognize that what was once a population dominated by Euro-Americans has changed radically. While less evident in the population of teachers and researchers, these changes are quite obvious in the general and student population.

Students and the literacy achievement gap

We use the term *students of diverse backgrounds* to describe students who differ from the mainstream in ethnicity, primary language, and social class. In the United States, these students (a) are generally African American,

Asian American, Latino/a, or Native American in ethnicity; (b) speak home languages other than standard American English; and, (c) come from poor or working class families. Historically, schools have been unsuccessful in bringing students of diverse backgrounds to the same levels of literacy achievement as their mainstream peers, resulting in a literacy achievement gap. This gap is evident in the results of reading and writing tests administered by the National Assessment of Educational Progress (Donohue, Voelkl, Campbell, & Mazzeo, 1999) and in the standardized test scores obtained by states (e.g., Kamehameha Schools Office of Program Evaluation and Planning, 1993).

These tests reflect the autonomous model of literacy (Street, 1995). This model leaves unexamined the idea that literacy is not simply a collection of skills but is instead a cultural practice. It assumes that the essayist form of literacy—dominant in western academic circles—is the only desirable form. The essayist form includes what Delpit (1986) has termed the codes of the culture of power, such as standard American English. In the autonomous model, literacy development is viewed as part of the forward march of civilization, associated with economic progress, social mobility, and individual liberty. Proponents of the autonomous model assume that literacy can and should be measured by standardized tests and, moreover, that the results obtained accurately reflect students' cognitive skills in reading and writing.

Street (1995) contrasted the autonomous model with the ideological model, in which literacy is viewed as sociocultural practice. From this perspective, literacy is not a single entity comprising cognitive skills; essayist literacy is one among many. The literate and nonliterate do not stand on either side of a great divide because oral and literate modes of expression overlap and interact in complex ways (Scribner & Cole, 1981). Grand claims cannot be made for the effects of literacy because literacies and their social consequences vary across cultural contexts. Literacy is a social construction surrounded by processes for socializing young learners into literacy learning. From this perspective, limiting school literacy to essayist modes ignores potentially more meaningful literacy practices within families and communities. These practices may be of considerable significance to students and, thus, important avenues through which students may acquire multiple literacies.

Street's ideas have important implications for researchers and educators involved in the literacy education of students of diverse backgrounds. The ideological model reminds us that the literacy measured by achievement tests is but one among several literacies that students are learning. Students of diverse backgrounds often appear highly literate and accomplished when literacies other than those of the school are considered. Gilmore (1983) studied *doin' steps*—chanted rhymes accompanied by dancing and hand clapping—among African American girls in a school in a low-income neighborhood. Doin' steps involved the girls in complex spelling and rhyming activities and required the application of many skills present in the reading curriculum. However, because doin' steps was seen as a part of peer or street culture, the school did not recognize or value the literacy skills and talents of its practitioners. According to Gilmore, students tended to be identified by the school as deficient in the very skills exhibited when doin' steps. Other literacy practices outside of school may require students to use skills and strategies more complex than those required in school. For example, bilingual students often act as translators for their parents, reading and completing forms required by various agencies and mediating interactions between their parents and the representatives of these agencies (Trueba, 1984). Such documents cover topics including education, health care, finances, and legal matters.

Much more research is needed on literacy practices in nonmainstream communities. Research across scholarly areas has documented the importance of background knowledge to understanding new constructs (Guzzetti & Hynd, 1998). Further, research suggests that building upon students' knowledge base facilitates their learning. Thus, there is much to be gained in better understanding the literacies students bring to the classroom, both for working within what social constructivist theorists (e.g., Vygotsky, 1978) have described as students' zones of proximal development, as well as for making literacy learning in school pertinent to students' everyday lives and therefore more compelling and motivating.

Yet bringing peer or community literacies into the school is a complex matter that can lead to controversy among both adults and students. One controversy relates to the culture of power (Delpit, 1988), which can be an issue in bilingual settings as well as across varieties or dialects of the English language. Parents may regard efforts by educators to introduce popular culture and peer or community literacies into the classroom as a sign that their children are not learning what mainstream students learn and are not being held to the same high standards. For example, Gilmore (1983) documented the concerns of black teachers and parents who tended to regard doin' steps in a negative manner. These adults interpreted white teachers' more lenient attitudes toward doin' steps as a sign of lower standards for the students.

Similarly, some parents oppose bilingual education with its aim to encourage literacy in both the home language and English. Parents may prefer an English immersion approach because of anxiety about their children's opportunities to master the codes of the culture of

power. Parents may react negatively to teachers' use of literature written in a nonmainstream variety of English, even though the literature may reflect their own and their children's first language. Parents, and often students themselves, recognize that academic, economic, and social advancement in the mainstream requires mastery of the codes of the culture of power.

A second controversy stems from the intricate relationship between language and identity (Gergen, 1991; Hoffman, 1989; Ogbu, 1990; Rodriguez, 1982). Because identity is so closely linked to language, students may resist co-opting by educators of nonmainstream or nonschool literacies (e.g., doin' steps) so that they can preserve these literacies as indications of membership in peer cultures. The differences in perspective that underlie these controversies remind us that literacies are associated with different degrees of power, and the value of mainstream literacy may best be appreciated by those without ready access to it.

The autonomous and ideological models lead to different interpretations of the literacy achievement gap. Proponents of the autonomous model argue that specific skills related to essayist literacy are necessary to the development of literacy. Even if multiple literacies are recognized, it is argued that the skills are generalizable across all forms of literacy. Thus, the literacy achievement gap is thought to be caused by the lack of specific, basic skills, and remediating those skills would eliminate the gap. In contrast, proponents of the ideological model suggest that the gap tells us little about students' literacy broadly defined, because standardized tests measure one, not multiple forms of literacies. From this perspective, the gap is less an indicator of students' literacy potential and more an indicator of schools' difficulty in providing students of diverse backgrounds with adequate opportunities to acquire mainstream literacy skills. Proponents of the ideological model emphasize the school's responsibility in guiding students to develop these skills.

Many studies show that schools provide students with different literacy learning opportunities depending on factors such as family income, ethnicity, and primary language. Research by Allington (1991) suggested that some schools in low-income communities may allot less time for reading instruction than do other schools, although a recent study suggests that time spent in reading instruction is unrelated to the level of poverty in a school (Taylor, Pearson, Clark, & Walpole, 1999). Schools in low-income communities tend to have fewer experienced teachers, less money for instructional materials, and offer instruction oriented toward basic skills rather than higher level thinking (Darling-Hammond, 1995).

There is no correlation between schools' level of poverty and ratings of teachers' accomplishment in the teaching of reading (Taylor et al., 1999), indicating that accomplished teachers may be found in high-poverty as well as low-poverty schools. Taylor (personal communication, April 17, 1999) argued, however, that the presence of accomplished teachers is more important to students' achievement in high-poverty than in low-poverty schools. The reason is that students of diverse backgrounds often depend on the help of accomplished teachers to become capable readers, while mainstream students are generally less in need of such skillful guidance.

Teachers may have different academic expectations for students of different ethnicities (Oakes & Guiton, 1995). A disproportionate number of students of diverse backgrounds may be placed in special education and remedial reading classes, where teachers hold lower expectations for their achievement. The instruction given to second-language learners tends to emphasize activities such as oral reading rather than text comprehension (Fitzgerald, 1995) or language structures and sentence copying rather than communicative competence (Valdes, 1998). Given all of these conditions, it is obvious why proponents of the ideological model insist that the literacy achievement gap must be seen as a complex problem that cannot be addressed with simplistic solutions.

Students of diverse backgrounds presently constitute a significant proportion of the school-age population in the United States. The diversity of this population is evident in Table 1, which presents figures for the 1990s along with projections for 2025. In the 1990s, more than one third of the students enrolled in public schools from Grades 1 to 12 were members of minority groups, and a substantial number spoke a home language other than English. When compared to white children, children in black families were three times as likely to live in poverty, children in Native American families twice as likely, and children in Asian and Pacific Islander families one and one half times as likely.

In 2025 the population of students will be larger and more ethnically diverse, and an equal or perhaps even higher proportion of children may grow up in poverty. School poverty depresses the achievement scores of all students when at least half are from low-income families, and this effect is even stronger when more than 75% of the students are from such families (Puma et al., 1997). In short, present demographics indicate the urgency of issues raised by the literacy achievement gap; future demographics will magnify the significance of these issues.

Teachers and teacher education

The increasing diversity of the student population is not reflected in the teaching force. In 1993-94, of the 2.5 million public elementary and secondary teachers, only

Table 1 Diversity in the U.S. student population

Time period	Demographics
During the 1990s	35% of public school students in Grades 1-12 were members of minority groups. The ethnic background of the student population was white (non-Hispanic), 65.6%; black (non-Hispanic), 16.7%; Hispanic, 13.0%; Asian/Pacific Islander, 3.6%; and American Indian/Alaskan Native, 1.1%. 13% of students ages 5-17 spoke a language other than English at home, and 5% had difficulty speaking English. 8.5% of white families had incomes below the poverty level, compared to 26.4% of black families, 20.2% of American Indian families, and 12.4% of Asian and Pacific Islander families. 21.4% of Hispanic families were below the poverty level.
Projections for the year 2025	There will be over 58 million school-age children (5- to 17-year-olds). 17.32% will be black, 7.41% Asian and Pacific Islander, 1.30% Native American, Inuit, and Aleut. Students of Hispanic origin are expected to number 13.4 million or 23.03% of the total.

Note. Information from National Center for Educational Statistics (1998) and U.S. Bureau of the Census (1997). Information about the Hispanic population is presented on separate lines above because in the Bureau of the Census definition individuals of Hispanic origin may be of any race.

7.4% were black, 4.2% were Hispanic, and 1.9% were other minorities (National Center for Education Statistics, 1997). In other words, fewer than one out of every eight teachers is from a diverse ethnic background, compared to more than one out of every three students. These demographics suggest two areas for research. First, research is needed on more effective ways to recruit, prepare, and retain teachers of diverse backgrounds in the profession. Second, research is needed that explores better ways to educate all teachers to work with students in a culturally responsive manner. Of particular importance is the question of how to help teachers understand students whose cultures are different from their own.

Clearly, there are issues of equity when schools employ few teachers of diverse ethnic backgrounds. Explanations for the shortage of individuals of diverse backgrounds in the teaching force vary, depending on the group. Reasons cited for the shortage of African American teachers include historical factors, such as the impact of school desegregation, and the increased use of teacher competency tests (King, 1993). In the case of Asian Americans, explanations include discrimination due to immigrant status (Kong & Preissle, 1997). Factors that may be common to several groups include low percentages of students graduating from high school, students receiving inadequate academic preparation to succeed in college, and increased career choices for women.

Some of the challenges in recruiting and preparing teachers of diverse backgrounds are illustrated in work with Native Hawaiians (Au & Maaka, 1998; Maaka & Au, 1999). In schools on the Leeward Coast of Oahu, approximately two thirds of the students are of Hawaiian ancestry. However, fewer than 10% of the teachers are Hawaiian. Only about half the students in this community graduate from high school. It is not surprising, then, that few residents have the college credits necessary to be admitted to a teacher education program. Moreover, Hawaiians successfully admitted to teacher education faced further obstacles. Many were first-generation college students who had to finance their education with little or no help from their families, who could ill afford the additional expense.

Due to inadequate high school preparation, Hawaiian teacher education candidates struggled with the academic demands of college. Few candidates entered the 2-year preservice program in elementary education with positive attitudes towards literacy. In general, they did not read or write for their own enjoyment. For many, their experiences with literacy at home had centered on homework, while their experiences with literacy at school had involved activities that held little interest for them (e.g., round-robin oral reading, book reports, reading textbooks, and writing responses to questions). Courses in the teacher education program were designed to help candidates develop ownership of literacy through experiences in writers' and readers' workshops (Au, 1998-99), so that they, in turn, would be able to foster ownership in their elementary school students through use of constructivist approaches.

Of course, more research must be conducted on the question of whether the presence of a significant number of teachers of diverse backgrounds can improve the literacy achievement of students of diverse backgrounds and, if so, exactly how such improvement occurs (cf. Cizek, 1995). Existing research suggests some possibilities (King, 1993), although few connections to students' literacy achievement have been established. These teachers may improve achievement because they refer fewer students to special education, manage classrooms with fewer disciplinary problems, and establish effective communication with families (Meier, Stewart, & England, 1989). If teachers have grown up or reside in the community, they

may have a better understanding of the problems students face. They may improve achievement through a combination of empathy and rapport with students while simultaneously maintaining high standards. They may be especially effective in communicating ideas to students and engaging them in discussion through the use of culturally familiar interaction styles (Foster, 1989).

Au and Mason (1981) documented the effectiveness of teachers' use of a culturally responsive style of interaction in reading lessons with Hawaiian children, using participation structures similar to those in *talk story,* a Hawaiian community speech event. They found that the use of talk story-like participation structures—in contrast to the typical classroom recitation pattern of teacher initiation, student response, teacher evaluation—led Hawaiian children to be more attentive during the lesson, discuss more text ideas, and make a greater number of logical inferences. Initial research on talk story-like participation structures was based on lessons taught by a Hawaiian teacher (Au, 1980). As this example suggests, through their insiders' knowledge of the culture, teachers of diverse backgrounds may play a unique role in helping researchers understand the elements of culturally responsive instruction in particular settings.

However, we must recognize that even successful efforts to recruit teachers of diverse backgrounds will not automatically lead to culturally responsive instruction. Regardless of the diversity of the teaching force, there will always be situations in which teachers and students do not share the same ethnic, linguistic, or economic backgrounds. Some studies suggest that dedicated teachers, regardless of ethnicity, can learn to use culturally responsive pedagogy and to be effective with students of diverse backgrounds. For example, subsequent research by Au and her colleagues (Asam et al., 1993; Asam et al., 1994) showed that teachers of various ethnicities could conduct reading lessons using talk story-like participation structures. In a study of demonstration classrooms, both Hawaiian and non-Hawaiian teachers who fully implemented writers' and readers' workshops succeeded in bringing Hawaiian students to high levels of literacy (Au & Carroll, 1997). Similarly, in her study of classrooms with African American students, Ladson-Billings (1994) identified both successful white and African American teachers.

When teachers do share their students' backgrounds, a more insidious problem may occur. Teachers sometimes think that because culture is not an issue within their classrooms, they need not be conscious of it. However, ignoring culture does nothing to prepare students to live in a diverse world. Florio-Ruane and Raphael (Florio-Ruane, 1994; Florio-Ruane & deTar, 1995; Florio-Ruane et al., 1999; Raphael & Florio-Ruane, 1998) have been engaged in a line of research to address literacy teacher education in situations where diversity among teachers seems lacking. Their concern is that, despite efforts to recruit individuals from diverse groups, the vast majority of teacher education candidates continue to be Euro-American, monolingual, female, in their 20s and 30s, and from working and middle class families. Many of these young women obtain jobs in the most challenging—and from their point of view, least desirable—contexts, such as poor urban or rural schools.

These teachers see culture as something that exists outside themselves. Florio-Ruane et al. (1999, p. 6) noted that a few of the teachers who participated in their study actually stated that they "had no culture." The challenge to Florio-Ruane and Raphael was to create a context in which diverse voices could get on the table, despite a lack of apparent diversity among the teachers themselves. The researchers engaged teachers in reading and discussing ethnic autobiographies, texts written by immigrants who shared experiences of loss and frustration within U.S. society and schools, as well as autobiographies written by white teachers (Paley, 1979) who worked with culturally diverse students.

Through contexts including a voluntary book club of student teachers (Florio-Ruane, 1994; Florio-Ruane & deTar, 1995), a literary circle, and a master's degree course (Florio-Ruane et al., 1999), the researchers traced teachers learning through conversations about cultural identity, literacy, and their sense of themselves as professionals. Their current research is exploring how such experiences support teachers' development of a culturally sensitive literacy curriculum and the response of students to participating in such a curriculum. Efforts to date have shown a positive influence on teachers' understandings of culture and literacy, providing hope that an effect on children's learning will be seen.

Researchers and knowledge production

The ethnicities of researchers, no less than those of teachers, raise issues. As shown in Table 2, from 1976 to 1996, the number of U.S. citizens receiving doctoral degrees in education dropped by over 1,000 (National Research Council, 1998). In the context of a shrinking pool of doctoral recipients in education as a whole, fewer African Americans were earning doctorates in education in the mid-1990s than in the mid-1970s. Frierson's (1990) concern—that the shortage of black researchers constituted a crisis—still appears valid. Furthermore, although their numbers have increased, relatively few Hispanics, Asians, and Native Americans received doctorates in education in 1996. Given that many of those receiving doctorates choose careers in teaching and administration, as

Table 2 Race/ethnicity of U.S. citizen doctoral recipients in education

	1976	1981	1986	1991	1996
Total	7,114	6,581	5,629	5,614	5,866
Known race/ethnicity	6,928	6,362	5,551	5,572	5,817
Asians	37	79	60	85	92
Blacks	672	564	423	437	582
Hispanics	126	155	190	175	204
Native Americans	21	39	26	55	60
Whites	6,072	5,525	4,852	4,820	4,879

Note. From National Research Council (1998).

opposed to research, the pool of educational researchers of diverse backgrounds seems alarmingly small.

Frierson suggested reasons why there is so little visible participation by blacks in educational research and development. In the academic milieu at predominantly white, research universities, blacks may find themselves physically and psychologically isolated. Colleagues may not be interested in, or supportive of, their interests in research in culturally diverse communities. Prejudice and discrimination, however subtle, may cause black researchers to be excluded from prestigious projects, to receive less assistance than other new faculty members, and to earn lower salaries. The factor contributing most strongly to the graduation of black graduate students is the presence of black faculty members, but few are likely to be present to serve as mentors. Upon graduation, few blacks enjoy the advantage of having strong relationships with mentors who can promote their professional success. Moreover, professional training at research universities introduces the risk that researchers from marginalized communities may become outsiders to their own communities or be perceived as having sold out to the mainstream (Banks, 1998).

Frierson (1990) offered recommendations for universities serious about attracting and retaining black faculty. Universities must acknowledge the presence of institutional racism, and action must be taken when incidents occur. Steps should be taken to reduce the isolation experienced by black faculty by providing them with opportunities for professional development. Black faculty should receive support for their research and be given the same amount of time to engage in research as their peers. There should be recognition that demands typically made of black faculty, such as service on numerous university and local committees, may exceed those placed on their peers. We presume that these recommendations apply, to some degree, to all faculty members of diverse backgrounds.

Although the number of researchers of diverse backgrounds remains quite low, the population of researchers has been slowly but steadily becoming more diverse in terms of ethnicity (Gordon, 1997). In this sense, the trend for researchers does not parallel the trend for teachers, although the proportion of researchers of diverse backgrounds remains below that of teachers. The annual report of the American Educational Research Association (AERA) (Russell, 1998) showed the following distribution of membership: black or African American, 6%; Asian or Pacific Islander, 6%; American Indian/Native American, 0.7%; Hispanic, 4%; Caucasian (other than Hispanic), 79%; and other, 4%. The National Reading Conference (NRC), the major professional organization for literacy researchers, reports the following percentages based on the 379 members who chose to identify their ethnicities: African American, 3.4%; Hispanic/Latino, 3.7%; Asian/Pacific American, 1.8%; and white, 87% (personal communication, Judith Burnision, February 1, 1999).

The changing demographics of AERA were described in a report by its Task Force on the Role and Future of Minorities (Gordon, 1997). While recognizing some progress, this report illustrates how AERA membership reflects neither the changing demographics of public school students nor the general population. The report suggests that researchers may see educational issues very differently from the educators and professionals of diverse backgrounds who often work most closely with underserved groups of students. The differences between researchers and public school communities can result in situations in which issues of high interest to researchers are not the most urgent to schools and communities.

The report connects the internal conflicts experienced by AERA to demographic changes in schools and in its own membership. These changes are seen as connecting to fundamental challenges to the process of knowledge production in education. AERA, the report argues, has had the role of preserving traditional research frameworks and methodologies, even when those approaches failed to recognize the diversity characteristic of its membership and of the larger society. AERA, NRC, and

other professional organizations have historically functioned to define what counts as knowledge in academic settings. Thus, those who are challenging these organizations from diverse cultural perspectives are working not only to change the organization but also to change what counts as knowledge within educational research and how such knowledge can or should be produced. Implicit in these challenges is the question of which group or groups have the power to act as arbiters for the profession.

Researchers of diverse backgrounds can make exceptional contributions to education. By virtue of having been raised within the culture and continuing to endorse its values and beliefs, these researchers may have insights likely to be unavailable to researchers of mainstream backgrounds. In Banks's (1998) typology of crosscultural researchers, these individuals were categorized as indigenous-insiders. Within the field of literacy research, a notable example of an indigenous-insider's work is Delpit's (1988) critique of the process approach to writing and discussion of the place of skills in the literacy curriculum for African American students.

Another noteworthy example is seen in the work of Moll and Diaz (1985). In a study of the reading instruction of bilingual students, these investigators used both cultural and linguistic knowledge to gain insights about why Spanish-speaking students were classified as poor readers in an English reading class and how their comprehension abilities might better be developed. Moll's (1992) work concerned the funds of knowledge held by Mexican American families and how this knowledge can be used in classrooms to improve academic achievement, including literacy.

Guerra (1998), also an indigenous-insider, studied oral and literate practices in a Mexicano community whose members moved back and forth between a Chicago neighborhood and a small village in Mexico. He argued that research on the language and literacy of marginalized groups must look at practices both on the *home front* (contexts in which group members interact with one another) and in the *contact zones* (contexts in which group members interact with those from other groups). Through the close examination of oral language in everyday use, personal letter writing, and autobiographical writing, Guerra demonstrated the richness, creativity, and emotion conveyed through the rhetorical skills of community members. He suggested that future research might look at the possible use in classrooms of genres based on lived experience, such as personal letter writing and autobiographical writing, to foster students' literacy development.

In their critique of the classic First-Grade Studies (Bond & Dykstra, 1967), Willis and Harris (1997) made their stance as indigenous-insiders explicit by describing their experiences as African American first graders growing up in the U.S. during the struggle for civil rights in the 1960s. They proceeded to demonstrate how characteristics of race, class, language, and community were overlooked in the First-Grade Studies and suggest how these characteristics could have been incorporated. For example, African American scholars might have been involved as directors of studies in segregated schools, and interviews might have been conducted of African American teachers. As Willis and Harris pointed out, the danger of research that fails to consider contextual issues—such as ethnicity, language, and social class—is that it can perpetuate the dominant ideologies and instructional practices that keep students of diverse backgrounds at a continued disadvantage.

Changing definitions

Literacy: From reading the word to rewriting the world

Changing definitions of literacy and the literacy curriculum have important implications for educating students of diverse backgrounds. Freire (Freire & Macedo, 1987) saw literacy processes as both growing from and shaping the social and political world of the literacy learner:

> Reading the world always precedes reading the word, and reading the word implies continually reading the world.... this movement from the word to the world is always present; even the spoken word flows from our reading of the world. In a way, however, we can go further and say that reading the word is not preceded merely by reading the world, but by a certain form of writing it or rewriting it, that is, of transforming it by means of conscious, practical work. For me, this dynamic movement is central to the literacy process. (p. 25)

Two implications of Freire's writings frame our discussion of defining literacy. First, reading the world is a personal stance taken by the reader. One's perspectives, background, beliefs, and language shape the way the world is read, and in turn, the way the world is read shapes the meaning readers bring to the written word. For all students, but especially those of diverse backgrounds, ownership of literacy is key to the kind of critical literacy Freire describes (Au, 1997). Students with ownership understand the personal aspects of literacy, which leads to positive attitudes about literacy and habits of using literacy in everyday life for their own purposes. There is a reciprocal relationship between ownership of and proficiency with literacy. On one hand, students with

ownership of literacy are motivated to gain proficiency. On the other hand, students who become more proficient find it easier to carry out literacy activities, which may raise their motivation to engage in such activities. Helping students gain ownership of literacy contributes to their empowerment, because students realize they have tools of communication that can be used to gain a better understanding of the world and to act upon (or rewrite) the world.

Second, the notion of rewriting or transforming the world through conscious, practical work underscores the importance of literacy education for preparing students to read, comprehend, and interpret ideas presented through all the literacy artifacts available within today's society, as well as for preparing them for successful encounters with literacy artifacts that we may only dream of today. Thus, while traditional reading instruction may have focused on reading the word on the printed page, in today's society —with its plethora of media and technologies—such an approach is limiting, at best, and detrimental, at worst. Some researchers have expressed a preference for the term multiliteracies (New London Group, 1996) to connote the cultural and linguistic diversity of increasingly globalized societies and the related circulation of diverse texts, and to argue that the teaching of literacy must account for the proliferation of text forms growing from new technologies.

The process of defining literacy is not simply an intellectual exercise. Definitions drive both the curriculum and what counts as progress toward becoming literate. For example, in the 1970s and early 1980s the state of Michigan defined reading in terms of fluent print decoding. Students' progress was measured on word- and sentence-level recognition tasks, with minimal emphasis on comprehension and none on interpretation. Not surprisingly, curriculum guides reflected the discrete teaching of word-level skills. This approach to literacy assessment and curriculum reflected the assumptions then held by the profession that (a) word identification and other basic skills preceded comprehension, response, and critical thinking; and (b) once basic skills were in control, the rest followed. Throughout the early to mid-1980s, literacy professionals within Michigan redefined reading as an interactive process and emphasized comprehension. Major changes followed in the state's English language arts standards and related assessments that tested higher levels of comprehension and writing in response to text, two areas ignored in previous iterations.

This example illustrates that, as definitions change, so do the curriculum, instruction, and assessments associated with them. Currently, few assessments examine critical literacy, and fewer still explore students' ability to engage with any literacy artifacts beyond printed text. Yet, as we approach the new millennium, we have every reason to believe that literacy demands will change drastically over the next decades and centuries. In the past 50 years, we have moved from computers that filled buildings to ones that, while equally or more powerful, fit on our laps or can be held in our hands. We have moved from television for the select few to television as ubiquitous around the globe, even in remote villages (Florio-Ruane & McVee, in press). Current standards for English language arts (National Council of Teachers of English and International Reading Association, 1996) are moving toward placing viewing and visually representing alongside the traditional areas of reading, writing, listening, and speaking, a trend captured in the term *communicative arts* (Flood & Lapp, 1995). In short, as we move from reading the word to rewriting the world, we must recognize the numerous contact points among cultures, with many of the world's languages and ethnicities represented among the students in today's classrooms, and the centrality of multimedia and critical evaluation.

How do these evolving definitions of literacy relate to issues of equity? In general, in schools with high proportions of students of diverse backgrounds, there is a tendency for literacy and other subjects to be operationally defined in terms of basic skills rather than higher level or critical thinking (Darling-Hammond, 1995). Teachers who work with struggling readers tend to engage them in round-robin oral reading, while instruction in comprehension and opportunities to read extended texts are minimal. This pattern is evident in the instruction given to the lowest reading groups and in remedial reading classes (Allington, 1991) as well as in reading lessons given to second-language learners (Fitzgerald, 1995). Opportunities to develop critical literacy are often less available to students of diverse backgrounds than to mainstream students, and opportunities for thoughtful engagement with the full range of society's literacy artifacts are even more limited.

Why would dedicated teachers opt for such a narrowing of the literacy curriculum? There are many explanations, including naiveté about what constitutes literacy, pressures for students to obtain high scores on standardized tests, and a belief that students must master basic skills measured by standardized tests before higher level skills can be developed. There is also the belief that low scores on basic literacy tasks can be equated with low academic aptitude or intelligence, despite evidence that test scores are highly influenced by family income and so appear to be measures of the cultural capital of mainstream students (Ascher, 1990; Puma et al., 1997).

These explanations are further complicated by the problems associated with high-stakes testing. In such situations, educators are encouraged to focus on raising test

scores, a response that usually involves narrowing the curriculum. Instead of emphasizing critical literacy and higher level thinking, instruction focuses directly on the content and skills covered in the test, no matter how narrow the definition of literacy the test has followed. Many educators do not seem to realize that this approach to raising test scores is unethical (Haladyna, Nolen, & Haas, 1991).

Considerable work must be done to devise and promote the use of alternative forms of assessment, so that accountability demands can be met without an overreliance on standardized testing that narrows the literacy curriculum for students of diverse backgrounds. For example, adding the dimension of the visual arts to assessments would, if history serves as a model, lead school literacy curricula to emphasize visual arts in daily instructional activities. This, in turn, could lead to the development of more effective literacy instruction for students of diverse backgrounds. Greater attention to and integration of the visual arts may allow teachers to create more motivating lessons, in which connections can be made to students' interests in popular culture. Flood and Lapp (1995) pointed to the potential of television, in particular, for developing the literacy of second-language learners. If students are taught to analyze visual images in the same critical manner as written text and to use visual images to enhance their communications, they may gain greater power as communicators.

However, expanding the literacy curriculum along these lines depends on the availability of technology and teachers' developing expertise in teaching both with and about visual images. Schools in affluent communities generally have ample funds to purchase technologies associated with new literacy forms. In contrast, schools in low-income areas often lack funds to purchase new technology and to install and maintain the necessary infrastructure (e.g., phone lines, alarm systems).

Given the bias toward skills versus higher level thinking in schools with a high proportion of students of diverse backgrounds, we must guard against the use of technology to reinforce this bias. Uses of computers that promote critical literacy include accessing information through the Internet, supporting the writing process, and communicating with other students around the world. However, the danger exists, especially in low-income schools, that computers will be more readily employed as high-tech workbooks to track skills progress, with onscreen multiple-choice tasks offering no more opportunity for communication and higher level thinking than traditional paper-pencil tasks. Or computers may be used simply to reward students with mindless games after they have completed assigned school work. Worse still, it is possible to imagine cost-cutting experiments in which technology is used to replace expert, human teachers. In this scenario, students receive literacy instruction primarily through rote interactions with computers, television, videos, and so forth, rather than through dynamic interactions with experienced teachers or with their peers.

Changing definitions of literacy and the literacy curriculum create the vision of engaging lessons that better capture students' attention and enable them to become powerful communicators, capable of analyzing and presenting messages using a combination of written text and visual images. However, the high cost associated with making this vision a reality suggests that steps must be taken to see that the advantages of technology accrue to students of diverse backgrounds as well as mainstream students. We know, for example, that the higher level thinking and communication skills of bilingual students can be enhanced through interactions with computers, as part of a larger, well-designed educational change effort (Vasquez, 1994). Delpit (1991) and Strickland (1994) reminded us that students of diverse backgrounds must be taught to be thinkers and not just obedient workers. As definitions of literacy broaden and evolve, we must be aware of the forces that lead schools with high proportions of student of diverse backgrounds toward an overemphasis on phonics and other basic skills and away from an emphasis on critical literacy.

Garrison (1995) referred to a double bind in the tension between students' need to appropriate cultural tools such as literacy that empower them as social actors and society's need to reshape or recreate itself. Au (1998) extended this notion of the double bind to literacy education. She pointed out that current conditions in schools often prevent students of diverse backgrounds from attaining the high levels of literacy that would enable them to analyze, critique, and address situations of inequity. Ironically, these students—through insights gained as a consequence of their positioning with respect to ethnicity, language, and social class—may be capable of developing the very ideas most needed to reform society and address issues of social justice, indeed, to rewrite the world.

Literature and text: From the canon to multiple voices

Students of diverse backgrounds will be more likely to develop and express their opinions in classrooms where the concept of multiple voices is instantiated in a number of ways, including the literature. In her essay examining the future of literature-based instruction, Diamond (1998) poignantly described what it was like to grow up in the era of Dick and Jane readers, when an African American child, or any child not of Euro-American ancestry, would be unlikely to find any familiar cultural representations in the literature. Reflecting on her

days as an elementary student, Au (1997) recalled that the absence of literature featuring Asian American characters led her to assume that books were supposed to represent worlds other than her own.

In contrast to Diamond's and Au's experiences, students of diverse backgrounds today are likely to find multicultural literature in their classrooms, including works by diverse authors capable of providing inside views of their cultures. The literature-based movement has been singularly successful in bringing multiple voices into the classroom. This is crucial for the same reasons Florio-Ruane et al. (1999) have noted in working with teachers: providing a mirror to reflect on who we are and why we behave and believe as we do, and a window to allow us into worlds distant in place and time, ones we may never directly experience.

Traditionally, educators believed that all students should read a canon of great literary works that reflected mainstream cultural values (Applebee, 1991). With the increasing use of multicultural literature, the question has been raised of whether there should be a new literary canon, incorporating key works by diverse authors. Purves (1994) has argued against such an effort because of the impossibility of choosing a single work or set of works to represent the complexities of particular cultures or society as a whole. Institutionalization of a new canon, including multicultural works, might contribute to superficial treatment of cultural complexities, leading teachers and students to believe that a particular culture or set of issues has been covered and needs no further study. Instead, Purves recommended deeper exploration, spanning grade levels, to build students' understandings of cultural diversity.

Changes have taken place not just in the nature of the texts but in what it means to read and to respond to literature. Two decades ago, Rosenblatt (1978) described readers' responses as both aesthetic and efferent. A decade ago, Langer (1990a; 1990b) focused on the process of literary understanding as adopting different stances in relationship to an envisionment of the world created by the text. Or, as Scholes (1989) wrote, "it is a matter of entering, of passing through the looking glass and seeing ourselves on the other side" (p. 27). Recently, Galda (1998) offered the metaphor of literature as both mirror and window to describe the essence of texts used to teach children to read. These elaborations underscore the importance of the individual reader as well as the social world in which the reading occurs.

Technology adds new dimensions to discussions of literature and response. Reinking (1995) argued that literacy researchers must come to terms with a posttypographic world in which electronic forms of reading and writing replace or extend printed ones. He believed that forms of electronic reading and writing are leading to profound changes in how we approach reading and writing tasks, how we communicate and disseminate information, and how we think about the teaching and learning of literacy. Technology may offer possibilities for extending the concept of multiple voices. Reinking expressed the view that hypertext has the potential to further a democratic view of text and writing. New literate communities can grow around writers who are contributing members of hypertext development teams. Because hypertexts can be organized in nonhierarchical, nonlinear ways, they can serve as models of conversations in which no one voice or point of view dominates. Reinking also gave the example of electronic texts on the Internet, which give writers the ability to disseminate their ideas without having to face the obstacles posed by conventional publishing.

In combination, work on multicultural literature, literary response, and posttypographic text addresses the variation in artifacts that constitute literacy materials in today's society, while emphasizing readers as active participants in constructing meaning and responding personally to what they read. This work also underscores attempts in the past decade to eliminate the artificial distinction between school texts and real-world or authentic literature, on the assumption that literature should be defined broadly to include the full range of materials that students read, hear, view, and interpret.

The potential of new texts must be juxtaposed against the continuing challenges of teaching students to gain access to these texts. Teaching reading carries with it two obligations. On the one hand, we must make sure that all students are taught at an instructional level, within their zone of proximal development, so that they make appropriate progress each year. On the other hand, regardless of reading level, we must engage students of every age in critical thinking using age-appropriate materials. We know that both of these obligations are particularly difficult to meet in classrooms with many students of diverse backgrounds, because a significant number are categorized as poor readers. In the past few decades, our field has tended to treat these two obligations through alternative approaches. One approach has focused on skills development with materials at students' reading levels, downplaying critical thinking. The other has favored the development of critical thinking through whole-class activities appropriate for that grade level, deemphasizing skills development. Given the complexity of the variety of texts available today, we see the need to address both of these obligations.

To address both needs, literacy researchers must explore the organizational frameworks, instructional emphases, and expectations that support diverse students'

engagement with both age-appropriate and reading-level-appropriate materials. For many students learning to read, these texts are one and the same, but for struggling readers—including many students of diverse backgrounds—they are often vastly different materials. For struggling readers, age-appropriate textual interactions have been largely ignored in favor of extended drill and practice using easier-to-read texts. Further, even when struggling readers are allowed to participate with their classmates, they often do not receive the explicit instruction and scaffolding necessary to progress at an accelerated rate. Yet these students must make more than a year's progress in a year's time if they are ever to keep pace with their peers.

The relationship between literature and equity, then, is complex. First, the use of literature that represents the many cultures that make up our world is crucial, because of the diversity in the student population in the United States and other countries, and because of the importance of helping students to gain a global perspective. Students should see themselves and others in texts and visual images across a variety of media, and the study of literature should lead them both to an understanding and appreciation of their own culture and the cultures of others. The use of authentic literature in classrooms is central to the development of students' ownership of literacy and to meaningful literacy activities. Second, a literature-based program must address the needs of struggling readers. These readers must be allowed to work both with texts at their instructional levels and with age-appropriate texts. The use of instructional-level texts can build fluency in word identification, promote comprehension, and build independence in reading. The use of age-appropriate texts can foster engagement with peers, promote literary response, and develop critical thinking. Instructional approaches that allow students to work with both types of text are discussed in the next section.

Instruction: From transmission to transaction

In a behaviorist or cognitive science perspective, the conduit is the guiding metaphor for instruction, with instruction seen as a transmission process from teacher to student (Au & Carroll, 1996). Signals move out from the teacher to be received by the student. In a social constructivist perspective, the conversation is the metaphor for instruction, with instruction seen as a transaction process between teacher and student. Signals move between teacher and student, as ideas are exchanged for the purpose of generating knowledge. Of course, while these metaphors may be useful heuristic devices, processes of transmission and transaction are not mutually exclusive, and instructional events often incorporate both elements. For example, teachers who are proponents of a transaction view of instruction include elements of transmission when they conduct minilessons to provide explicit instruction on strategies such as comprehension monitoring or on concepts such as figurative language. These same teachers have students read instructional-level as well as age-appropriate texts, although the former are typically associated with a transmission view of instruction.

We have been advocates of a transaction or constructivist perspective in literacy instruction, because we believe that it offers significant advantages for teaching critical literacy. In part, this advantage derives from the potential of transaction-oriented literacy activities to foster productive teacher-student and student-student relationships and communication. These productive relationships are shaped when students' interest and involvement in meaningful literacy activities serve as the starting point for instruction (Au & Raphael, 1998). At the same time, the teacher keeps in mind both the social and cognitive abilities to be learned.

Interest and involvement become more likely when teachers include instruction that makes explicit connections between literacy activities and students' own lives and concerns. Teachers may lead students directly to these connections, or they may guide students to discover these connections through independent reading, writing, and talk about text. For example, in teacher-led literature discussions using the experience-text-relationship approach, teachers ask about students' background experiences related to the theme of the story (Au, 1979). In supporting students' independent reading, teachers learn about students' interests and help them locate books related to those interests. Teachers may need to help students develop social skills needed in independent reading, including how to approach the teacher or other students for help in finding a suitable book (Reyes, 1991). To prepare students for leading their own discussions, teachers create community norms that specify respect for one another's ideas, ways of eliciting ideas and offering differing viewpoints, and methods for sustaining talk about a single book, as well as making intertextual connections (Raphael & Goatley, 1997).

It is crucial that teachers emphasize both the social skills, as well as literacy skills, related to comprehension and personal response, especially with students of diverse backgrounds who may be unfamiliar with the interactional demands of classroom activities. For example, in the home, children may be expected to listen respectfully to adults without speaking until the proper response is made clear. Not surprisingly, these children may be reluctant to offer opinions when the teacher asks open-ended questions during literature discussions. The teacher will

need to help children understand that speculation is expected and considered appropriate in this literacy activity.

In a review of instructional research in literacy, Raphael and Brock (1997) summarized their observations about the nature of quality instruction. First, studies suggest that quality literacy instruction occurs in meaningful contexts. Constructivist or transaction approaches enable students to understand the functions of the skills, strategies, and dispositions they have been taught. An awareness of these functions appears to enhance students' willingness to engage in literacy and to view literacy in positive terms. Second, research supports the notion that quality literacy instruction actively engages students in meaning construction. Students create, select, and carry out activities that allow them to construct their own understandings of literacy, for example, in decoding by analogy or composing from multiple sources.

Third, studies highlight the idea that quality literacy instruction requires teachers to have a repertoire of instructional strategies. The trend is away from teacher-proof programs or generic solutions for issues relating to teacher talk and student response. Instead, researchers are recognizing the cultural, linguistic, and academic diversity in classrooms and looking at the range of strategies teachers should have at their command in order to reach every student. Successful teachers know how to select and adapt these strategies depending on the needs of the learners.

Fourth, research suggests that quality literacy instruction entails dynamic and changing conceptions of the roles of teachers and students in instructional encounters. For example, students, not just teachers, may initiate literacy activities. Teachers may teach students to conduct discussions of literature among themselves, instead of continuing to direct such discussions for students. In a related vein, many studies document the benefits of student-student talk in promoting engagement, response, comprehension, and interpretation of text. Raphael and Brock (1997) concluded that a common theme cutting across these four observations is the valuing of participatory literacy events that both students and teachers find meaningful.

The New London Group (1996) offered a theory of pedagogy consistent with the conclusions of Raphael and Brock (1997). This theory is based on four components that interact in complex ways. The first component, situated practice, involves students' immersion in meaningful practices within a community of learners who can take on a variety of roles, depending on their backgrounds and experiences. The second component, overt instruction, includes active interventions by the teacher that scaffold learning activities and focus the learner's attention on important features of their experiences and explorations within the community of learners. Overt instruction includes teacher-student collaborations within the zone of proximal development that enable the learner to gain explicit information at the critical moments when it can be most useful to practice.

Critical framing, the third component, requires students to see the abilities they have gained through situated practice, along with the conscious understandings gained through overt instruction, in terms of larger social, cultural, political, and historical contexts. In other words, students take an ideological perspective and question or rethink what they have come to know, in terms of different systems of knowledge, values, and social practices. In transformed practice, the fourth component, students move beyond critique to reflective practice. This involves a return to situated practice but with a difference, because students should demonstrate what they have learned by implementing new practices growing out of their own goals and values, with real purposes and relevance to real-world issues. Here we see connections to Freire's (Freire & Macedo, 1987) idea of transforming the world through conscious, practical action. The theory proposed by the New London Group (1996) adds specificity to the manner in which quality instruction, as described by Raphael and Brock (1997), can be used to promote critical literacy. Applying this theory of instruction to literacy remains to be explored through research.

As this discussion makes clear, definitions of instruction, like definitions of literacy, are becoming broader and more complex, creating more roles and responsibilities for the teacher in instruction. Au and Raphael (1998) identified five different roles teachers may assume, depending on the degree of teacher versus student control in the instructional encounter. In explicit instruction, the teacher transmits knowledge to the students. In modeling, the teacher provides demonstrations of literate behavior. In scaffolding, the teacher supplies varying degrees of support for students' performance while they engage in literate behavior. In facilitating, the teacher simply smooths the way, because students have reached the point where they need little help. Finally, in participating, the teacher engages in the same activities as the students, such as literature discussions or sustained silent reading.

These evolving definitions of instruction offer great promise in terms of narrowing the literacy achievement gap because of teachers' ability to make strong linkages to students' prior knowledge and interests, to supply clear demonstrations of skilled performance, to provide support tailored to learners' emerging capabilities, and to promote the application of literate practices. A growing body of studies demonstrates the advantage of transaction or constructivist approaches to instruction for im-

proving the literacy learning of students of diverse backgrounds (Au & Carroll, 1997; Dahl & Freppon, 1995; Guthrie et al., 1996; Morrow, 1992; Morrow, Pressley, Smith, & Smith, 1997).

Obviously, a high level of teacher expertise is required to conduct complex models of instruction, raising questions of the extent to which such instruction will be readily available in classrooms with high proportions of students of diverse backgrounds. According to Darling-Hammond (1995), skilled, experienced teachers are more likely to be found in affluent districts, such as suburban districts with relatively few students of diverse backgrounds. These districts are able to offer teachers higher pay and better working conditions, including well-maintained buildings; classrooms well stocked with computers, supplies and current instructional materials; and ample opportunities for professional development. Less affluent districts, such as urban districts with high numbers of students of diverse backgrounds, often offer teachers lower pay and poor working conditions, which may include deteriorating buildings, classrooms with few or no computers, minimal supplies, and outdated instructional materials, and few opportunities for professional development. Given this situation, experienced teachers can hardly be questioned for transferring to affluent districts. Few teachers have the stamina and determination to work continually in frustrating, substandard conditions, despite their commitments to improving literacy learning of students of diverse backgrounds.

The challenges faced are illustrated on the Leeward Coast of Oahu in Hawaii, where the work of Au and Maaka (1998) is ongoing. Schools in this area are considered by many teachers, who tend to be from middle class backgrounds, to be the least desirable places to work for many reasons. These schools are far from the suburban residential communities where most teachers live. Because the majority of students are of Hawaiian ancestry and from low-income backgrounds, teachers generally find their classrooms to be culturally unfamiliar settings, presenting them with significant challenges in terms of classroom management and instruction. The schools are large and overcrowded, and new teachers may find themselves teaching in old buildings or in spaces not originally intended to serve as classrooms.

Teachers often spend hundreds of dollars each year from their own pockets to buy books and other instructional materials, and even bookshelves and other furniture, for their classrooms. Teaching positions on the Leeward Coast are generally filled by new teachers who cannot obtain positions in schools considered more desirable. When their experience qualifies them for teaching positions available in schools in the more affluent communities near to their homes, these teachers often choose to transfer. It is not unusual for a school on the Leeward Coast to lose one third of its teaching staff in a single year. When teachers leave schools on the Leeward Coast, they take the knowledge and experience they have gained to their new schools. As this example shows, schools in more affluent communities are often the beneficiaries of the instructional expertise teachers have gained in other settings. Meanwhile, schools in low-income communities continue to serve as training grounds.

If students of diverse backgrounds are to experience the advantages of instruction growing from presently evolving definitions of instruction, several issues must be addressed. First, steps must be taken to provide additional funding for the professional development of their teachers. Due to the complex nature of successful literacy instruction, a long-term view must be taken of professional development, with plans for a given school projected over a period of 3–5 years or even longer. Also, professional development cannot take the form of simple, transmission-oriented workshops but must involve teachers in constructing their own new visions of instruction, including an understanding of theory, research, practices, and challenges. Teachers must be the developers of new, theory-based forms of curriculum, instruction, and assessment. Teachers must be given time to develop the skills and knowledge necessary for collaborating with other educators, parents, and community members, if they are to participate effectively in long-term reform efforts. Second, steps must be taken to retain experienced teachers in these schools. These steps may include recruiting teacher education candidates who reside in and have a commitment to improving education in communities such as the Leeward Coast and who will remain in schools in the area. Professional development efforts cannot take hold when many new teachers are entering the school each year, while many experienced ones are leaving.

Conclusion

Given that the literacy achievement gap is likely to pose grave concerns for educators and researchers for years to come, we conclude with a research agenda indicating the issues we would like to see addressed in articles published in the new millennium. This agenda grows from two themes developed in this article. On the one hand, changing definitions of literacy, literature, and instruction offer new promise for bringing students of diverse backgrounds to high levels of literacy. On the other hand, problems that presently sustain inequity in school literacy learning will need to be overcome if this promise is to be fulfilled.

We see the need for further research on language and literacy practices in nonmainstream communities. A

foundation has been established with the work of Guerra (1998), Heath (1983), Purcell-Gates (1995), and Taylor and Dorsey-Gaines (1988), but much remains to be known. Little research is yet available about literacy practices in Asian American and Native American communities. In terms of the literacy achievement gap, it is important not just to study community practices but to look for possible connections to school literacy learning. For example, can the genre of personal letter writing studied by Guerra (1998) be built upon by classroom teachers to foster fluency, voice, and knowledge of conventions in school—in English and in Spanish? Or would such attempts by teachers be viewed by students as unwelcome intrusions into a realm of communication reserved for family and friends? Connections will not always be possible. For example, it would have been difficult for Gilmore (1983) to persuade many teachers to use doin' steps as a basis for fostering literacy skills in school because of community attitudes toward this practice.

Once connections to school are shown to be feasible, research is needed on the effects of the culturally responsive practices on literacy learning. We see this step as vital although it has seldom been taken in existing studies. We view culturally responsive practices for improving students' literacy learning as valuable enhancements to constructivist approaches for literacy instruction, including the process approach to writing and literature-based instruction. We would like to see research showing how these approaches can be expanded or enriched to address issues of diversity.

Literacy researchers tend to focus on the design of successful instructional approaches and to give less attention to issues of how such instructional approaches can become widely used in schools. Unlike the skills-oriented approaches that are part of what Shannon (1990) termed the scientific management tradition, progressive, constructivist approaches have never held sway in the majority of classrooms in the United States. We would like to see studies of the process of change that supports teachers in moving toward constructivist approaches and sustains the use of these approaches in classrooms with students of diverse backgrounds over a period of years. An array of such studies—conducted in individual schools, groups of schools, school districts, and states—would provide much needed information. Little research exists that looks at how policy and legislation, and the related flow of funding, impedes or promotes the use of different approaches to literacy instruction with students of diverse backgrounds. Issues raised by Pogrow (1998) about comprehensive school reform legislation and by Goodman (1998) about the Reading Excellence Act highlight the need for such research.

Research on teacher education looms large in our minds because we believe that the expertise of the classroom teacher is the key to overcoming the literacy achievement gap. We see the need for research on preservice programs that emphasize issues of diversity and prepare teachers to promote the literacy learning of students of diverse backgrounds. Studies describing multicultural teacher education programs were reviewed by Gomez (1994) and Grant (1994). We hope to see this literature enriched by studies addressing the question of how multicultural teacher education programs can be enhanced specifically to build teachers' expertise in literacy instruction. Such programs should address the issue of teacher expectations and build teachers' confidence that, with effective instruction, students of diverse backgrounds will reach high levels of literacy. They should also familiarize teachers with research on literacy practices in diverse communities and on the possible implications of these practices for literacy learning in school.

We believe that multicultural teacher education programs should be the norm and not the exception, and this argument would be bolstered by research demonstrating that graduates of these programs have high expectations for their students' learning and are successful in teaching their students to read and write. Even less is known about programs that enable inservice teachers to better address issues of diversity in their classrooms (but for an example, see Diamond and Moore, 1995); more research in this area is crucial to improving the literacy learning of students of diverse backgrounds.

We see a continuing need for research on how a greater number of teachers of diverse backgrounds can be brought into the profession. We must understand that prospective teacher education candidates may themselves be affected by the literacy achievement gap. Efforts to attract students of diverse backgrounds into teacher education must begin with research on how they can be supported throughout their schooling and gain the belief that they can become teachers, long before they enter the university. We see promise in research that focuses on collaborative efforts among universities, schools, and communities, such as that described by Au and Maaka (1998) and by Littleton (1998).

Longitudinal research is needed on such questions as whether such programs are effective in recruiting and graduating teachers who return to the schools in their communities, whether the diversity of the teaching force in these schools is significantly increased over time, and whether the graduates of these programs are effective in promoting their students' literacy achievement. Research should not be limited to preservice programs but should address the role of ongoing professional development efforts for these teachers, during their induction and be-

yond. Although a start has been made (e.g., Galindo & Olguin, 1996), much more research is needed on teacher education candidates and inservice teachers of diverse backgrounds and the factors that contribute to their development as successful literacy educators.

Similarly, research is needed on how the number of researchers of diverse backgrounds can be increased. We see parallels to ideas about the recruitment, retention, and ongoing professional development of teachers of diverse backgrounds. Perhaps more should be done to introduce students of diverse backgrounds to the possibility of becoming educational researchers during their undergraduate years. Perhaps potential researchers of diverse backgrounds could be recruited through their systematic involvement in studies of literacy in their communities and schools. Specific, ongoing efforts must be in place to support the development of researchers of diverse backgrounds. These include increased funding for recruiting and retaining these researchers and stronger support through mentoring programs within universities and professional organizations. Research is needed on professional settings that support or fail to support the advancement of researchers of diverse backgrounds. We would like to see studies documenting the experiences of individuals of diverse backgrounds who succeed in completing doctoral programs and establishing programs of literacy research and the factors that contributed to their success.

At the advent of the new millennium, we look forward to increased attention to issues of equity and diversity in the field of literacy research. We believe that research can and should contribute to a narrowing of the literacy achievement gap between students of diverse backgrounds and their mainstream peers. The 20th century has been characterized as an era of broken promises in reading instruction (Shannon, 1989). We hold out the hope that the 21st century will be characterized as an era of promises kept.

AUTHORS' NOTES

Research on teacher education by the first author was supported by a major grant from the Spencer Foundation for the project "The Successful Education of Hawaiian Children: A Study of Preservice and Mentor Teachers." Contributions to this article by the second author were supported, in part, by the Educational Research and Development Centers Program, PR/Award Number R305R70004, as administered by the Office of Educational Research and Improvement, U.S. Department of Education. However, the contents of this article do not necessarily represent the positions or policies of the National Institute on Student Achievement, Curriculum, and Assessment, or the National Institute on Early Childhood Development, or the U.S. Department of Education. Readers should not assume endorsement by the U.S. Federal government.

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